DOUBLE ISSUE

DEC. 2 / DEC. 9, 2019

TIME

PARTY'S OVER

THE FALL OF AMERICA'S RULING CLASS

by ***ANAND GIRIDHARADAS***

Plus

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100 BEST INVENTIONS OF 2019

100 MUST-READ BOOKS OF THE YEAR

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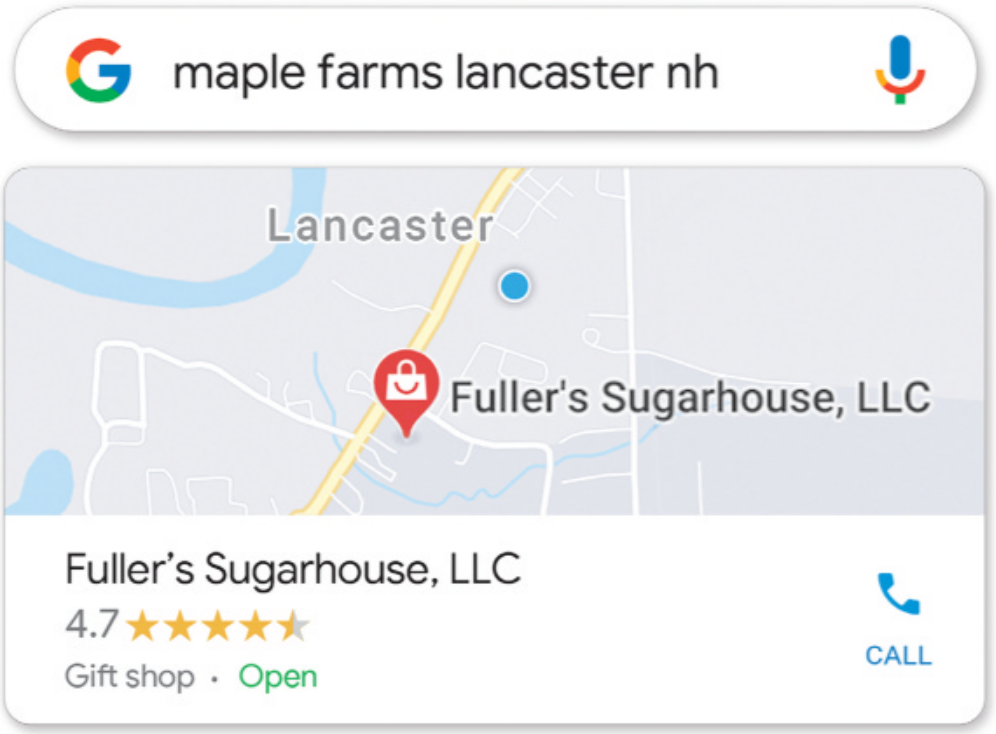

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Photograph by Joe Lingeman for TIME

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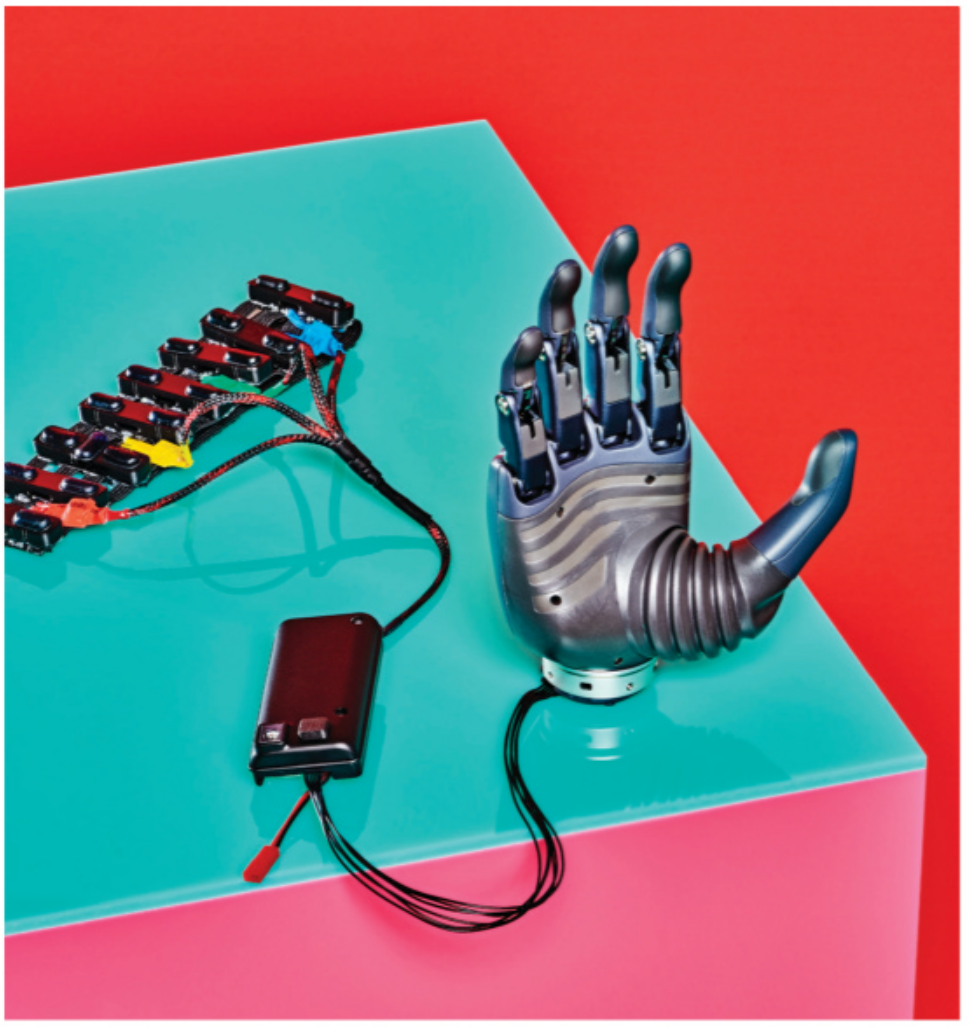
Art by Delcan & Company for TIME; photographed by Jamie Chung



THE 16 DEFINING
IDEAS
The end of elitism, ailing unicorns, eco-anxiety, and other debates and trends that shaped 2019 pg 40

THE 100 BEST
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THE 100 MUST-READ
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WHAT YOU SAID ABOUT ...

AMERICA ON TRIAL Readers appreciated the balance of viewpoints in the Nov. 18 cover package, ahead of the beginning of the public impeachment hearings. While Paul O. Cornish of Alma, Ga., disagreed with Robert Ray's argument that President Trump shouldn't be impeached because he didn't commit a crime, he was left with a better understanding of that perspective. And after reading Neal Katyal and Sam Koppelman's argument in favor of impeachment, Mark H. Fink of Huntington Woods, Mich., had no doubt that "Trump's conduct epitomizes the Founding Fathers' concept of high crimes and misdemeanors."

> ***'Too many people and politicians do not care about ... principle over tribe.'***
>
> **SANDRA FELKENES,** Portland, Ore.

Many readers agreed with Jon Meacham's view that the congressional hearings are about more than just Trump. Robert Netkin of Mountain View, Calif., thought the cover's declaration that America was "on trial" was "unnecessarily inflammatory," but said "we're overdue for such a serious self-re-examination" of "damaging elements of American society." Phyllis Newman in Mount Airy, Md., was troubled by people who she said care less about Trump's values than about the growth of the economy: "When we choose self-interest over integrity," she wrote, "we risk all." Laura Goldstein of Clemson, S.C., was left hoping leaders will set a good example for future generations: "If we allow lies and attempts to profit by those in power, what does that teach our children?"

> ***'To investigate at this juncture seems essential.'***
>
> **GEORGE SIGEL,** Boston

***TIME* 100 NEXT** TIME celebrated the launch of the TIME 100 Next with an evening of speeches, interviews and performances on Nov. 14 in New York City. The new franchise spotlights rising stars who are shaping the future of business, entertainment, politics, science and more. The event hosted members of the inaugural list—including Costa Rican President Carlos Alvarado Quesada, Olympic gymnast Aly Raisman and, above, Grammy Award–nominated singer Camila Cabello, who closed out the night with some of her biggest hits. See the whole list plus video interviews at **time.com/next**

FROM OUR SPONSOR
Caitlin Morrow *(left)* and Kennedy Hines got a standing ovation at the TIME 100 Next gala when they talked about "The Moment," Citi's campaign to close the gender pay gap. The pair are children of employees at Citi, the founding partner of TIME 100 Next.

SETTING THE RECORD STRAIGHT In the Nov. 18 issue, the review of *Honey Boy* misidentified the actor who plays the psychologist in the film. It is Laura San Giacomo. In the same issue, a column by Neal Katyal and Sam Koppelman misstated the way in which Richard Nixon left the presidency. He resigned. And a photo caption in "The News Gets to Move On" misstated where the staff of the Capital Gazette was pictured. It was in Washington, D.C.

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CABELLO, CITI: KEVIN MAZUR—GETTY IMAGES FOR TIME (2)

This is the moment she learned
about the gender pay gap.
We should all feel this way.
That's why Citi has committed
to closing the gap.
www.citi.com/itsabouttime
citi

‘I think that young women are always treated differently in politics.’

LAUREN UNDERWOOD, U.S. Representative, at the TIME 100 Next gala Nov. 14, on former Representative Katie Hill’s decision to resign after admitting to an inappropriate relationship

‘We are no longer interested in such talks that bring nothing to us.’

KIM KYE GWAN, North Korean diplomat, on Nov. 18, in response to President Trump’s apparent offer of another nuclear summit

‘I’ve been ready for three years. I’ve been denied for three years.’

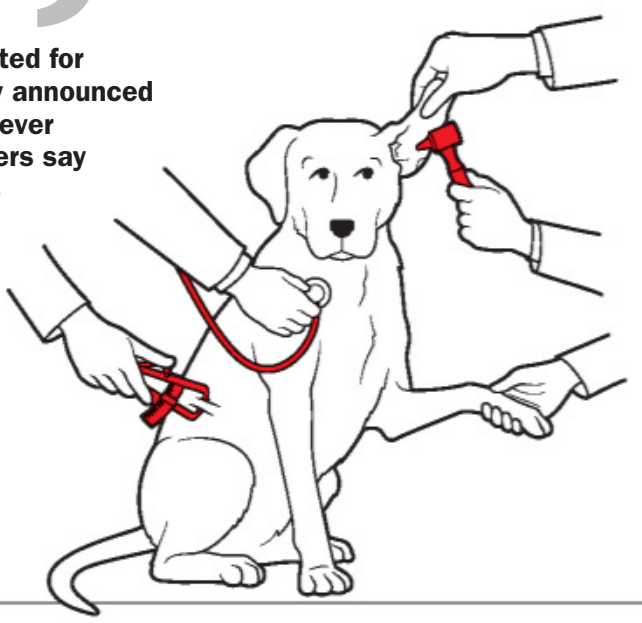
COLIN KAEPERNICK, quarterback, after canceling an NFL-backed workout event and holding one of his own on Nov. 16; he hasn’t played in the NFL since 2016

‘WE FOLLOWED THE PRESIDENT’S ORDERS.’

GORDON SONDLAND, E.U. ambassador, in his Nov. 20 House impeachment-hearing testimony on why he and other Trump Administration officials worked with the President’s personal lawyer Rudy Giuliani on Ukraine policy

10,000

Number of dogs wanted for a canine aging study announced Nov. 14, the largest ever of its kind; researchers say it could hold lessons for human aging too



$50,000

High end of the expected price at auction for the tennis racket Serena Williams smashed in her 2018 U.S. Open loss to Naomi Osaka

‘Arguments about who is right and who is wrong as a matter of international law will not bring peace.’

MIKE POMPEO, Secretary of State, announcing Nov. 18 that the U.S. will no longer view Israeli settlements in the West Bank as violating international law

Yogurt
A new report cited “yogurt fatigue” as a factor in slumping sales

Cheese
An Iowa artist carved a tribute to wrestler Dan Gable out of 3,000 lb. of cheese

ILLUSTRATIONS BY BROWN BIRD DESIGN FOR TIME

SOURCES: NEW YORK TIMES; NPR; WHO13; AP; ESPN

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These partners are bringing us one step closer to ending Alzheimer's and all dementia.

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The Brief

HEATING UP Protesters attempting to reach Hong Kong Polytechnic University on Nov. 18 face off against police

INSIDE

IRAN SNAPS OFF ITS INTERNET AMID PROTESTS

PETE BUTTIGIEG LEARNS THE PERILS OF SUCCESS

PHOTOGRAPHER TERRY O'NEILL AND A LEGACY OF GLAMOUR

PHOTOGRAPH BY KEVIN ON MAN LEE

WORLD

A siege in Hong Kong heralds a new phase

By Laignee Barron/Hong Kong

FOR ALMOST SIX MONTHS, THE UNREST IN Hong Kong has followed a rhythm. On weekends, the Chinese-ruled enclave would convulse with pro-democracy protests. During the workweek, the acrid haze of tear gas would clear and life moved on, though the revolutionary graffiti haranguing the Communist Party of China lingered.

But in November, the struggle took a sudden and dangerous new turn. After a student demonstrator died on Nov. 8 of complications from a fall during a protest, the weekly schedule surrendered to daily urban warfare. The demonstrators say normality cannot be restored. "We can't just protest on the weekends anymore," says Ezoe, a 20-year-old medical student. "If we are going to win this fight, people need to stop their jobs. The government needs to see the economy will hurt."

The latest escalation eventually centered on the city's universities, where students like Ezoe holed up to resist arrest. That places of learning have become battlegrounds strikes at the symbolic heart of the freedoms and values that Hong Kongers believe distinguish their semi-autonomous city from the rest of China. While Beijing has tried for years to push patriotic education here and state media have suggested that changes to the curriculum might solve the crisis, faculty, students and staff have resisted attempts to infringe on their academic independence.

With on-campus lectures canceled, students' energies went into stockpiling medieval-style weaponry like fencing blades, slingshots and bows and arrows and fortifying blockades in preparation for showdowns with police. After some of the bloodiest confrontations since the unrest began, demonstrators filtered into one last holdout: Polytechnic University.

PROTESTERS BUNKERED INSIDE the campus for a week, using it as a base to disrupt traffic and block the adjoining Cross Harbour Tunnel, a vital artery linking the city's most populous region to the commercial and financial districts on Hong Kong Island. Police encircled the area, and a days-long siege began in earnest on Nov. 17. Students returned a hailstorm of rubber bullets and tear-gas volleys with gasoline bombs, fiery arrows and barricades set ablaze. Some managed to evade the police in daring escapes, including rappelling down makeshift ropes to waiting motorcycles, but many more were detained. By Nov. 19, police said they had arrested or taken down the details of 1,100 people in and around "PolyU." As TIME went to press, dozens remained inside, refusing to surrender.

'They have to stop violence, give up their weapons and come out peacefully.'

CARRIE LAM, Hong Kong's chief executive, to reporters on Nov. 19

Although the size of the demonstrations has dwindled in recent weeks, it is no longer only student provocateurs squaring off with police. Amid a growing sense that peaceful protest is futile, the city's financial district is now regularly shrouded with tear gas in the middle of the workday. At lunchtime, bankers have joined street brawls, facing off with police against the backdrop of Chanel and Louis Vuitton stores. Amid a general strike, transportation has snarled and public schools were forced into a six-day shutdown. "This is no longer just a protest movement," says Yu, a 21-year-old student. "We are at war for Hong Kong's future."

Yet as the frontline protesters have grown more radical—committing arson, vandalizing subway stations and even dousing one detractor in flammable liquid and setting him on fire—they continue to retain public support. A survey by the Hong Kong Public Opinion Research Institute published on Nov. 15 found 83% of people faulted the government for the spiraling violence, while fewer than half blamed the demonstrators. "Whatever they do, I will support the protesters," says Tim, 30, a hotel worker who says he stopped joining the protests after they became more violent. "If we don't support them we will have a worse future with no more rights."

While the students at PolyU camped out, ordinary Hong Kongers came to their aid. Some traveled hours to bring supplies, while a group of teary-eyed relatives and friends staged a sit-in in front of police, who refused them access to the university. Other demonstrators staged a "blossom everywhere" campaign to draw police away from the institution.

This protracted unrest has taken a toll on workers like Tim. As tourists stay away, almost 8 in 10 hotel staffers have been asked to take a few days' unpaid leave, according to a union poll. Hong Kong has fallen into recession as its upscale hotels and glitzy shopping malls become backdrops to bloody duels. Many outside Hong Kong now fear what will befall Asia's world city. On Nov. 19, the U.S. Senate unanimously passed the Hong Kong Human Rights and Democracy Act, which aims to safeguard the territory's autonomy from any incursions by Beijing. But China sees the bill as an infringement on its sovereignty and already blames the current crisis on meddling foreign forces.

For all the protections and declarations of support the world may try to offer, many Hong Kongers say they cannot afford to lose this fight because the alternative would mean an end to the city's unique set of freedoms. And so for all the disruptions, chaos and danger, they would still rather live by the fits and starts of the protests than the dictates of Beijing. "I am much more afraid," says Bryan, a 30-year-old protester, "of what will happen if we don't stand up." ◻

PREVIOUS PAGE: PENTA PRESS/SHUTTERSTOCK; LAM: PHILIP FONG—AFP/GETTY IMAGES; CHILE: ALBERTO VALDES—EPA-EFE/SHUTTERSTOCK

TRICK OF THE LIGHT Protesters shine green laser pointers during demonstrations over inequality in Santiago, Chile, on Nov. 18. The tactic, which has been used around the world, is designed to confuse police drones and helicopters monitoring the crowds. The protests, initially triggered by a subway-fare hike in mid-October, have left at least 22 people dead and 2,300 injured. President Sebastián Piñera said on Nov. 17 that police have used "excessive force" in their response.

THE BULLETIN

Iran goes dark as riots surge over a gas-price hike

ON NOV. 16, IN A BID TO QUELL RIOTING that broke out after Iran's state oil company announced fuel-price hikes, Iranian authorities implemented a near total Internet blackout. The shutdown makes it difficult to gauge the scale of unrest, but Amnesty International says at least 106 protesters have been killed, and Iran's semiofficial Fars News Agency has reported that more than 1,000 people have been arrested. Videos smuggled out of the country show torched municipal buildings and abandoned cars blocking highways, as Supreme Leader Ayatollah Ali Khamenei blames the riots on external forces trying to "sabotage" Iran.

DOMESTIC DISCONTENT U.S. sanctions imposed since May 2017 have crippled Iran's economy, led to food shortages and fueled anger at the country's leadership. On Nov. 15, the National Iranian Oil Co. raised gas prices by 50% to 300%—an increase the authorities say will raise $2.55 billion a year for direct payments to citizens. Iran began rushing out those payments on Nov. 18, the same day the New York *Times* and the Intercept published some 700 pages of leaked Iranian intelligence-agency cables.

IRAN'S PLAYBOOK Blocking the Internet nationwide may signal even greater fear about the gas-price protests. During street protests against economic hardship and corruption in 2017–2018, Tehran disabled Internet access from cell phones and blocked messaging services to prevent protesters' organizing. Speaking after protests erupted elsewhere in the region in October, Khamenei blamed U.S. interference and praised the 2018 crackdown in Iran, saying, "The armed forces were ready, and that plot was neutralized."

AXIS OF RESISTANCE The domestic turbulence comes at a troubling time for Tehran. Economic worries have prompted protests in Lebanon and Iraq—both in Iran's sphere of influence—and forced Lebanon's Prime Minister to resign. Iran-linked militias have also been involved in direct violence in Iraq, and the leaked cables detail years of Iranian interventions there, bolstering protesters in Iran who say their leaders have spent billions on overseas proxies while neglecting unemployment and corruption at home. Cutting off the Internet will make it harder for protesters to organize, but it won't solve those problems. —JOSEPH HINCKS

NEWS TICKER

Prince retreats over Epstein friendship

Britain's Prince Andrew announced on Nov. 20 that **he was stepping back from royal duties** "for the foreseeable future," four days after a BBC interview in which he defended his relationship with Jeffrey Epstein. He said his links to Epstein had become "a major disruption" to the royals.

Syracuse reels after racist incidents

New York Governor Andrew Cuomo said Nov. 19 that Syracuse University needs to do more to address a **string of racist incidents on campus,** including graffiti as well as slurs yelled at students. Two days earlier, the school announced that a donor had provided $50,000 in reward money for information on who is responsible.

Sweden drops Assange rape investigation

On Nov. 19, Swedish prosecutors **dropped an investigation into a rape allegation** from 2010 against WikiLeaks founder Julian Assange, citing weakened evidence over time. Assange, in prison in London after spending seven years in the U.K.'s Ecuadorean embassy until he was evicted in April, denies the charge.

NEWS TICKER

Deadly clashes in Bolivia crisis

Human-rights groups condemned a Nov. 15 decree by Bolivia's interim leader, Jeanine Áñez, **giving the armed forces legal immunity** for acts committed while "restoring order" after the ouster of leftist President Evo Morales. Since Áñez took office on Nov. 12, clashes between security forces and Morales supporters have killed at least 20.

Chief Justice issues stay on Trump taxes

Days after President Trump's lawyers asked the U.S. Supreme Court to stop his tax returns from being released, Chief Justice John Roberts on Nov. 18 temporarily blocked a Court of Appeals order that would have **required Trump to turn over his tax returns** to Congress.

Gantz fails to form a government

Israel remained without a new government after Blue and White party chief Benny Gantz announced on Nov. 20 that he could not form a coalition. With Prime Minister Benjamin Netanyahu having already failed, the **odds rose of yet another election,** the country's third in 12 months. The most recent ballot was Sept. 17.

GOOD QUESTION

Why are Democrats attacking Pete Buttigieg?

STAFFERS ON COMPETING DEMOCRATIC campaigns have quietly snarked about South Bend, Ind., Mayor Pete Buttigieg for months. They've called him Sneaky Pete or Mayor McKinsey because of his ties to the business community or Cream of Pete because he's so Midwestern white. But now that the millennial mayor has surged to first place in Iowa—a Nov. 16 Des Moines *Register* poll had 25% of likely caucusgoers listing him as their first choice, leading Elizabeth Warren, Bernie Sanders and Joe Biden by roughly 10 points—all that once private griping is going public. In recent weeks, high-ranking Democrats have openly attacked Buttigieg as having a flimsy résumé, uncool fan base and lack of support among voters of color and being insufficiently progressive.

The most repeated point of criticism is Buttigieg's relative inexperience, especially compared with many of the women and nonwhite candidates in the race. Senator Amy Klobuchar suggested that if she or other female candidates had Buttigieg's résumé, "I don't think people would take us seriously." Former HUD Secretary Julián Castro registered a similar complaint: "We could almost fit South Bend in our Alamodome in San Antonio," said the two-term Texas mayor. Senator Kamala Harris, who spent 20 years rising through the ranks in California before becoming the first African-American woman elected state attorney general in 2010, dismissed him as simply "naive." Others have complained that the 37-year-old gay veteran has received an avalanche of positive press—far more than his competitors. "It's the embodiment of the adage that men can have potential and women have to have met it," says Christina Reynolds, a spokesperson for Emily's List, an advocacy group that works to elect pro-choice Democratic women.

Buttigieg spokesperson Chris Meagher downplayed fellow Democrats' irritation with the rising star. "We get it," he said. "We're the outsider upsetting the apple cart." But Buttigieg's many Democratic critics aren't letting up. His campaign has come under fire for its failure to win over black voters, a crucial segment of the Democratic base. (He's currently polling at 0% among black voters in South Carolina, according to a Nov. 18 Quinnipiac poll.) And progressive groups are attacking Buttigieg's comparatively moderate agenda. Justice Democrats has slammed the mayor for refusing to commit to policies like Medicare for All, which young people tend to support, while claiming to represent generational change. "You can't weaponize your millennial identity against us," says Justice Democrats spokesman Waleed Shahid.

Strategists warn that as long as Buttigieg's star is on the rise, the friendly fire will continue. "He's been attacking a lot of his opponents for a while now without having any real incoming," says progressive strategist Rebecca Katz. The Pete pile-on, she says, is "long overdue." —CHARLOTTE ALTER

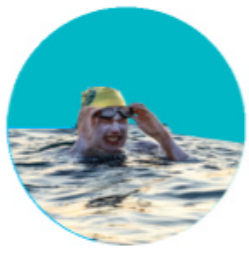
TRAVEL

Keep it moving

Australian airline Qantas completed the longest nonstop commercial test flight, from London to Sydney in just over 19 hours, on Nov. 15. Here, more long hauls. —*Rachael Bunyan*

BORN TO RUN
Ultramarathoner Dean Karnazes ran 350 continuous miles across California over three days in October 2005. He didn't stop to eat or sleep during his run, which lasted 80 hr. 44 min.

PLAIN SAILING
Adventurer Reid Stowe returned to New York Harbor in 2010 after spending more than three years sailing around the world. At 1,152 days, his trip marked the longest nonstop ocean voyage in recorded history.



SWIMMINGLY
In September, American Sarah Thomas became the first person to swim the English Channel four times nonstop. It took Thomas—who'd completed treatment for cancer a year before—just over 54 hours.

O'Neill, who was awarded a Commander of the Order of the British Empire (CBE) just months before his death, with actor Charlotte Rampling in 1988

DIED

Terry O'Neill

Lens on the stars

By Harry Benson

I REMEMBER TERRY O'NEILL AS A NATTY dresser with a cockney accent, which was all the rage in the late 1950s, when Terry replaced me as a photographer at the London *Daily Sketch* and I moved to the London *Daily Express*.

That was one of his first jobs, and Terry, who died at 81 on Nov. 16, went on to create enduring images of icons from Frank Sinatra to Brigitte Bardot. His own life was glamorous too. Once Terry and his then wife Faye Dunaway brought their new baby Liam over to our apartment in a wicker basket to meet my wife Gigi and me, and our doorman was delighted to see a movie star.

I never saw Terry on a news story, but I would always see him at the opening of a new film or at a press call with an upcoming new actress. The actor Michael Caine once said to me, "Terry really loves show business." To me, Terry *was* show business—and he has some great photographs to prove it.

***Benson,** CBE, is a photographer*

DIED

Harrison Dillard, oldest living American Olympic champion, on Nov. 15, at 96. Dillard won four gold medals, in 1948 and 1952, and is the only man to have won gold for both sprinting and hurdles.

> **Kimberly Gervais,** who was shot at the 2017 massacre at a Las Vegas country-music festival, on Nov. 15, at 57. It was the deadliest shooting in modern U.S. history.

REPORTED

That deforestation of **Brazil's Amazon rainforest** is occurring at the fastest rate since 2008, according to the country's space agency.

APPROVED

A new **North Carolina redistricting map,** by state legislators, on Nov. 15. Democrats are positioned to flip two Republican-controlled U.S. House seats under the new plan.

UNVEILED

The newest **Ford Mustang,** an all-electric SUV, on Nov. 17. Ford says the vehicle can accelerate from zero to 60 m.p.h. in less than four seconds.

VISITED

Walter Reed National Military Medical Center, by **President Trump,** on Nov. 16, for what his doctor described as an "interim checkup." The stop was not listed on his schedule.

DETECTED

Water vapor, on **Europa,** one of Jupiter's moons. The findings, published on Nov. 18, have fueled speculation on whether the moon might support life.

URGED

A complete **ban on all e-cigarettes** and other vaping devices, by the American Medical Association, on Nov. 19. The organization cited increasing use among teenagers.

APOLOGIZED

Michael Bloomberg

For stop and frisk

AS NEW YORK CITY mayor, Michael Bloomberg defended stop and frisk to the end. When a judge ruled in 2013 that the NYPD's practice of patting down anyone deemed "suspicious" was "indirect racial profiling," Bloomberg responded, "We go to where the reports of crime are. Those, unfortunately, happen to be poor neighborhoods and minority neighborhoods."

Police made almost 5 million such stops—82% of which involved black or Latinx people—from 2003 to 2013, per the New York Civil Liberties Union. Six years later, as he mulls a presidential bid as a Democrat, Bloomberg has apologized. At a black church in Brooklyn on Nov. 17, he acknowledged, "Far too many innocent people were being stopped."

For some advocates, however, it was too little, too late. "Communities under siege for years…" tweeted Sherrilyn Ifill, president of the NAACP Legal Defense Fund. "But now—as he prepares to run for President—he's sorry." —TARA LAW

RUN, SAILING: GETTY IMAGES (2); SWIMMING: AP; O'NEILL: MICHAEL WARD—HULTON ARCHIVE/GETTY IMAGES; STOP AND FRISK: GETTY IMAGES

World Health Organization chief **Tedros Adhanom Ghebreyesus** never stops worrying

By Jamie Ducharme

I AM AFRAID FOR DR. TEDROS' SAFETY.

The World Health Organization Director-General and I are walking from the WHO's midtown-Manhattan offices to the nearby U.N. campus, where Tedros is participating in the U.N. General Assembly. As we cross avenues amid a chorus of honking horns, Tedros is so intent on answering my questions, rarely breaking eye contact, that he appears not to notice traffic lights changing and cyclists whizzing past at alarming proximity. His staff and I breathe a collective sigh of relief when he arrives at the U.N. unscathed.

It should come as no surprise that the man at the helm of the world's leading global health organization—after a decade serving as Minister of Health, then Foreign Affairs in Ethiopia—is laser-focused on the issues that keep the public-health community up at night: child and maternal mortality; climate change; infectious-disease outbreaks; emergency preparedness; and, most of all, that "half of the world's population doesn't have access to essential services." That's why Tedros is committed to the WHO's goal of helping every country implement universal health coverage by 2030, calling on every nation, no matter how rich or poor, to put an additional 1% of its gross domestic product toward primary health care. "All roads lead to universal health coverage," Tedros tells me before we leave the WHO's offices. "It's when we have strong health systems in each and every country that the world becomes safe. We're as strong as the weakest link."

Tedros believes universal health care is a fundamental human right. But from his perspective, it's also a logical political selling point: it keeps people out of poverty and strengthens economies; helps prevent and contain epidemics (like the Ebola outbreak raging in the Democratic Republic of Congo for more than a year), keeping an increasingly globalized world safe from unchecked spread of disease; and it can lessen racial, socioeconomic and gender disparities by securing better care for vulnerable populations.

When Tedros was a child living in Ethiopia, his younger brother—then just 3 or 4—died of what he now suspects was measles. "I didn't accept it; I don't accept it even now," Tedros says of his brother's death. He was able to assign words to that feeling when, at age 23, he spent four months studying in Denmark after graduating from Eritrea's University of Asmara with a degree in biology, and saw universal health care in action. He struggled to reconcile "the unfairness" of a world where boys like his brother could die because of an accident of birth, while other children prospered in countries with better access to care. The feeling only intensified when he grew acquainted with the U.K.'s national health system while working toward his master's in infectious-disease immunology in London in the early 1990s, and again in 1997, when he got a front-row seat to Sweden's universal-coverage system. "Why do people die when we have the means?" he asks. "That motivates me."

TEDROS QUICK FACTS

Family man
Tedros has five children, ranging in age from 12 to 27; one, he says, wants to go into public health.

Home base
Though he's based in Geneva, Tedros says he belongs "to 194 countries."

Social status
Tedros' social-media savvy has won him more than 415,000 Twitter followers.

TEDROS' IS NOT a household name. The whole thing—Tedros Adhanom Ghebreyesus—is foreign even to him, since in Ethiopia, everyone goes by their given name. "I remember the first time I went abroad and people were waiting for me with my name [on a sign]. I didn't know who that person was," he says, laughing.

You may not know his name, but Tedros is a celebrity in the global health and diplomacy worlds. As I trail him around the U.N. campus, we can't go more than a dozen steps without someone asking for a photo, a handshake or simply a chance to say hello; one man hangs out of an idling car on Second Avenue just to get his attention. Tedros greets each person warmly and attentively—even if it means running late to his next appointment—while trying to remember dozens upon dozens of names.

Tedros built his reputation as a malariologist before becoming Ethiopia's Minister of Health in 2005, then its Minister of Foreign Affairs in 2012. While Minister of Health, Tedros was widely praised for building a female-focused primary-care system that deployed 38,000 community-health workers throughout the country, easing the nation's health care shortage and helping to reduce maternal and child mortality by about 60% each, compared with 2000. Still, his time in Ethiopia was not without conflict: the country had an abysmal human-rights record during his tenure in government, and while campaigning to become the WHO's Director-General in 2017, Tedros was accused by opponents of covering up cholera outbreaks in his home country. (He denied that charge then, and continues to do so today. "They knew during the campaign they were losing ground, so they had to try their last try to discredit it," he says now.)

Tedros inherited a big job when, in July 2017, he became the WHO's first African Director-General in its 69-year history. He took over shortly after the end of a brutal West African Ebola outbreak that many critics argued could have been minimized had the WHO done a better job of containing infection at the beginning. Two years

MARIDELIS MORALES ROSADO FOR TIME

in, Tedros' job hasn't gotten much easier. Ebola is back again, this time in the Congo. Skepticism of vaccines is proliferating, primarily in Western countries, and contributing to a resurgence of preventable illnesses like measles. Climate change is threatening human health at every level. And—despite drastic improvements over the past few decades—the global health community still struggles to protect vulnerable groups, like young children and women in childbirth. The WHO itself has drawn criticism from some in the public-health world, who have spoken out against its perceived organizational inefficiencies and overspending. Tedros also made headlines when he appointed Zimbabwe's authoritarian leader Robert Mugabe a WHO goodwill ambassador in 2017, a decision Tedros eventually reversed.

Tedros remains preternaturally calm in the face of all of this, pouring his energy into work and shrugging off suggestions that perhaps he should take a break sometimes. (When he does get a rare free moment, he says he spends time with his wife and five children back in Ethiopia or reads leadership and management books.) He remains committed to a dizzying array of projects at the WHO, from eliminating cervical cancer globally to removing trans fats from the world's food supply, and sees global health problems that are almost mind-bogglingly daunting in scope not as obstacles, but as the reason for playing the game.

'I didn't accept it; I don't accept it even now.'

TEDROS ADHANOM GHEBREYESUS, on the death of his brother in childhood from a preventable disease

These challenges are never far from Tedros' mind. When we meet on a cloudless Sunday morning to stroll Central Park, the morning after our first introduction, he looks like he's off-duty in sweatpants, sneakers and a bright blue WALK THE TALK T-shirt, a nod to a fitness challenge sponsored by the WHO. But after just a few minutes of conversation, it's clear that, at least mentally, Tedros never takes it easy.

"I like traveling to rural areas. I like to see real people. I like to see the problem. You can't see it from here," Tedros says, gesturing at the park, bathed in cinematic, early-fall light. "Many people say they're motivated by a positive thing. But me, what wakes me in the morning is the problem that has to be addressed. So I push on." □

City of water

High tide inside the Gritti Palace on Nov. 12, as Venice was beset by 6-ft.-high floods, the deepest in half a century. The waters also rose to about 5 ft. on Nov. 15 and 17, swamping cultural sites and causing hundreds of millions of dollars in damage. The city faces a compounded threat: its foundations are sinking into the mud, even as sea levels rise because of climate change. An underwater barrier system, meant to hold back the sea and intended to be operational by 2011, remains unfinished.

Photograph by Marco Bertorello—AFP/Getty Images

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The View

NATION

THE STAKES IN UKRAINE

By David French

In the impeachment inquiry, while there is a clear one-sentence summary of what Trump did—he hijacked American foreign policy to attempt to extort an investigation of a political rival from a desperate American ally—there is no good and simple explanation of the harm he stood to inflict on American national interests.

INSIDE

WHAT TRUMP'S MILITARY PARDONS REVEAL ABOUT HIM

A NEW WAY OF TEACHING ABOUT THANKSGIVING

ANGELINA JOLIE ON HELPING A NEW GENERATION OF CHILDREN

It's in understanding the gravity of the harm that Americans can begin to answer the question, "Why now?" Even if Trump did do something wrong, why impeach him during an election year? Why seek to remove him the very year when voters can render their own judgment on his candidacy?

The answer is short—because Trump's corruption could have had profound strategic consequences—but the explanation is a bit longer, and it requires the assistance of a timely report on Russian military capabilities from the RAND Corporation.

The report is clear. Many Americans are aware of Russia's capabilities in cyberwarfare and disinformation operations, but they're largely unaware of advances in its conventional military capabilities. Russia has accomplished two things of real importance in the past decade or so of military modernization. First, it has substantially modernized and professionalized its force. Second, it has optimized it for operations that are designed to place NATO, our most vital international alliance, in perhaps an impossible military, strategic and political bind.

Armed men believed to be Russian military during the annexation of Crimea in 2014

Russia's military progress has been on public display in two vital world regions: the Middle East (where it has proved remarkably effective at defeating the Syrian regime's internal enemies) and, crucially, in Ukraine. In the RAND report's words, when Russian forces invaded Crimea in 2014, "few were surprised by the annexation," but "many were surprised by the performance of the Russian armed forces."

Indeed, they've also "made Western militaries pay increasing attention to the threat that the Russian military would pose in any future conflict in Eastern Europe." The RAND report assesses that "Russian ground forces have local dominance along its European and Central Asian borders." In many ways, Ukraine is a testing ground for the kind of fight that could ultimately break NATO. Brian Nichiporuk, one of the report's coauthors, raised the specter of what he called a "smash and grab" operation—where Russia launches a rapid invasion of, say, Estonia, immediately incorporates the invaded nation into its formidable defense perimeter, and presents the invasion to the world as a virtual "fait accompli."

Would the U.S. commit its forces to a brutal, bloody battle to liberate its NATO ally? Or would the likelihood of serious casualties—combined with the difficulty of the operation—cause the public to demand that America abandon Estonia to its fate? If so, could the NATO alliance survive intact after Russia demonstrated that the combination of its might and will could make a superpower yield?

THESE SOUND LIKE ESOTERIC, theoretical questions—far removed from the daily lives of the American public. But these are exactly the kinds of strategic questions that Presidents and their advisers should ponder. Here's one way to phrase those interests—an effective Ukrainian defense against Russian aggression raises the cost of that aggression and (crucially) raises the perceived cost of future aggression.

Ukraine needed lethal military aid, and Congress appropriated money to fund that aid. Now we know that there was a dissenter—the President of the United States. And he dissented not because he'd made a careful (though contentious) assessment of America's best strategic interests, but rather because he was nursing various domestic American political grudges against the Bidens driven by unfounded conspiracy theories.

We need Commanders in Chief who are strategic in their thinking and motivated by the American national interest.

Trump, by contrast, is ignorant, impulsive, vulnerable to conspiracy theories, and motivated by his own personal grievances and grudges.

Eight months ago, I argued that an election, not an impeachment, was the way to hold President Trump accountable for his misdeeds. The Ukraine scandal changes the calculus. It demonstrates that the President will inject his vices even into the most consequential decisions. ◻

SHORT READS

Highlights from stories on **time.com/ideas**

Scourge of superbugs

Former NFL defensive tackle Brandon Noble kept playing for years despite injuries, including one that should have ended his career. **"What finally took me down?" he writes in a call for more-powerful antibiotics. "A tiny bug I had never heard of and couldn't see."**

State of longing

Though Michael Frank, author of *What Is Missing,* had heard stories from others who had struggled with infertility, he wasn't prepared for the agony he and his wife would go through. **"It's not just your body you hand over to complete strangers but your mind too," he writes.**

American oratory

Abraham Lincoln spoke of "four score and seven years ago" in the Gettysburg Address, a reference to the date of the Declaration of Independence's signing. But he honored ideals much older than that, writes Richard Brookhiser, author of *Give Me Liberty: A History of America's Exceptional Idea.* **"Americans began striving for liberty before the United States was a country."**

DAN KITWOOD—GETTY IMAGES

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WAR

Trump's pardons of U.S. soldiers defiles America's military

By Elliot Ackerman

IN NOVEMBER, PRESIDENT TRUMP signed pardons for Army First Lieutenant Clint Lorance and Army Major Mathew Golsteyn, and an order restoring the rank of Special Warfare Operator First Class Edward Gallagher to chief petty officer. The White House press release announcing the decision concludes with a quote from Trump: "When our soldiers have to fight for our country, I want to give them the confidence to fight." In the face of battlefield misconduct, this final statement is perplexing and begs the question: From where do we draw our confidence to fight?

Pete Hegseth, veteran of the Iraq and Afghanistan wars and co-host of *Fox & Friends Weekend,* has said the President believes, "The benefit of the doubt should go to the guys pulling the trigger." Fair enough: war is complicated, a realm where the toughest decisions appear not in black or white but in murky grays. However, in these cases, the issues are, for once, very clear. Lorance was found guilty of murder, and Golsteyn has confessed to murder—twice. With Gallagher—who posed for a photo over an executed ISIS prisoner and texted it to a friend, writing, "Good story behind this, got him with my hunting knife"—Trump is trying to strike the pose of being sympathetic to the war fighter while simultaneously undermining commanders who petitioned to demote Gallagher and strip him of his SEAL qualification in order to maintain good order and discipline.

THE CONFIDENCE TO FIGHT comes not from laxity but from discipline. When unit discipline breaks down—when lieutenants start shooting civilians (the case of Lorance), when special operators begin executing prisoners (the case of Golsteyn and, I would contend, Gallagher)—the confidence to fight evaporates. In fact, you aren't fighting anymore. You're doing something altogether different: killing.

Trump doesn't understand this difference. In October, he took to Twitter to discuss Golsteyn's case, writing, "We train our boys to be killing machines, then prosecute them when they kill!" Is that really how Trump views the U.S. military? As a collection of "killing machines"? When I returned from Iraq and Afghanistan, I was often asked by well-meaning people whether I had "to kill anyone over there." My response evolved to: "If I did, you paid me to." Which was more often than not met by confusion as opposed to the intuitive understanding that it was U.S. tax dollars that had sent me to war, and thus U.S. citizens who shared in the complicity of whatever killing I had done.

We've discovered a new way to defile the uniform. Today, we allow murderers to wear it while being lauded as heroes

I recently sat on a panel where the question came up of whether "Thank you for your service" was a sentiment appreciated by veterans. My co-panelist felt it held us apart from society, giving veterans an awkward "otherness." My view was that it is a genuine expression of gratitude. What both of us agreed on was that in the past few decades, norms of behavior toward veterans have changed for the better in this country. Thankfully we won't regress to the days of the Vietnam War when citizens spat on returning soldiers. Today, we all agreed, no one defiles the uniform and those who wear it.

How naive.

Norms have changed. We've discovered a new way to defile the uniform. Today, we allow murderers to wear it while being lauded as heroes. They tell their stories on cable news specials. This new norm should come as no surprise. In 2016, then candidate Trump announced in Iowa his personal view of killing and death. "I could," he said, "stand in the middle of Fifth Avenue and shoot somebody, and I wouldn't lose any voters."

Ackerman is the author of Places and Names: On War, Revolution and Returning

ILLUSTRATION BY KATIE KALUPSON FOR TIME

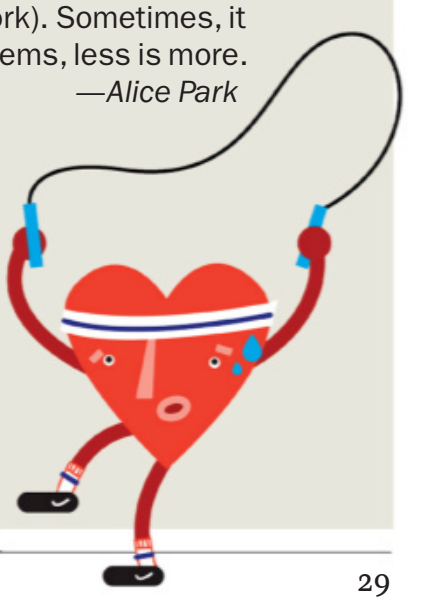
HEALTH

Rethinking heart treatments

Because heart attacks can be traced to narrowed or blocked blood vessels, doctors have relied for years on surgery to open up these restrictions with stents or bypass the blockages altogether. But best practices are sometimes based more on intuition than on the best science. In a study comparing people who had stent or bypass surgery with those who relied on medications, diet and exercise to lower cholesterol and blood pressure, resedarchers found that surgery did not necessarily lower the risk of having a heart event or dying from one. After four years, both groups had similar rates of heart attacks and hospitalization for chest pain or heart failure.

The findings are only the latest in recent years to suggest a lack of solid evidence supporting some popular standard treatments—such as arthroscopic knee surgery to relieve arthritis pain (exercise therapy can be just as effective), or that both resuscitation and chest compressions are needed in CPR to revive a failing heart (chest compressions alone can work). Sometimes, it seems, less is more.

—Alice Park



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Securing a better future for children

By Angelina Jolie

WHEN THE CHARTER OF THE U.N. WAS SIGNED IN SAN Francisco in June 1945, it promised equal rights for all but made no specific mention of children. Thirty years ago, the U.N. Convention on the Rights of the Child was adopted, recognizing for the first time that children have their own rights, distinct from adults'. The distinction is vital to the millions of children who still live with conflict, poverty, violence and abuse. Professor Geraldine Van Bueren was one of the drafters of the convention. I asked her if it has lived up to its promise and what her message is to children fighting to be heard today.

We've known each other for several years, but I've never actually heard how you became involved in drafting the convention. I was invited by Amnesty International to represent them at the United Nations in the drafting process. I was only in my 20s.

What compelled you to say yes? When I was young, we lived with my grandparents, who were refugees. My grandmother was a young child, one of 13 siblings, when she walked across Europe from Lithuania to the English Channel. It was in the days before aid agencies, mobile phones or instant food. I never heard her talk about how hard this must have been. Most of my Eastern European and Dutch family, including young cousins, were murdered in the Holocaust. From the age of 11, I wanted to be a human-rights lawyer to prevent the same thing happening to other people.

When we first met, I told you that my children had a summary of the convention on the wall of their schoolroom but that I had explained to them that so far, the U.S. hasn't ratified it. America's refusal to ratify is puzzling, as the country was one of the leading drafters. It protects children's right to free speech and religious freedom, the founding principles of the Bill of Rights. But it does a lot more. The convention tells us to look at the child's right to participate in decisions affecting them through a child's eyes and to provide information in a format appropriate to a child. So it also helps build an educated citizenship.

What difference does the lack of ratification make to children in the U.S.? Because childhood was invisible to the Founding Fathers, the Constitution makes no provision for children. America was not alone in this, but other countries have added legal protection for the rights of children by accepting the convention. It also provides a safety net, which all children need to have in case their government fails them.

Two American children, Carl Smith and Alexandria Villaseñor, have joined Greta Thunberg and children from 10 other countries in filing a complaint arguing that carbon pollution violates their rights. Is this an example of the convention at work? Their petition concerns all children, and generations yet unborn, so it is generous and compassionate. Under what is known as the Third Protocol, a treaty additional to the main convention, children can petition the U.N. Committee [on the Rights of the Child], but only after they have exhausted all possible national remedies. In other words, if America were party to it, state and federal legislators and state and federal courts would have opportunities first to remedy the violation.

Could children apply the convention to other areas? Absolutely. It's a Bill of Rights for children. The main aim of the convention is to act as an early-warning system, so that children and adults can point out that any particular policy or law, or lack of policy or law, has a detrimental impact on children—for instance, social media and the right to privacy.

We've discussed the importance of children's being made aware of their rights. What is your message to them? The convention is for the children of the world. Children participated in the drafting. American schoolchildren lobbied governments to persuade them to include the abolition of the death penalty, and Canadian First Nation children successfully called for the protection of indigenous children's rights. Children can help other children and prevent their rights being violated.

There is a disconnect between what the U.N. convention says are fundamental rights for children and the way governments pick and choose which ones they will or will not uphold. How do we get to the point that upholding children's rights is seen as an absolute responsibility? You are right that there is often a disconnect between what children are entitled to and what is happening to them, particularly to child refugees and children caught up in armed conflicts, situations for which they are not responsible. What the convention does is to provide an avenue for children not to be targeted. But it requires political will. The challenge is to make children the central plank of our policies. Childhood cannot wait. ☐

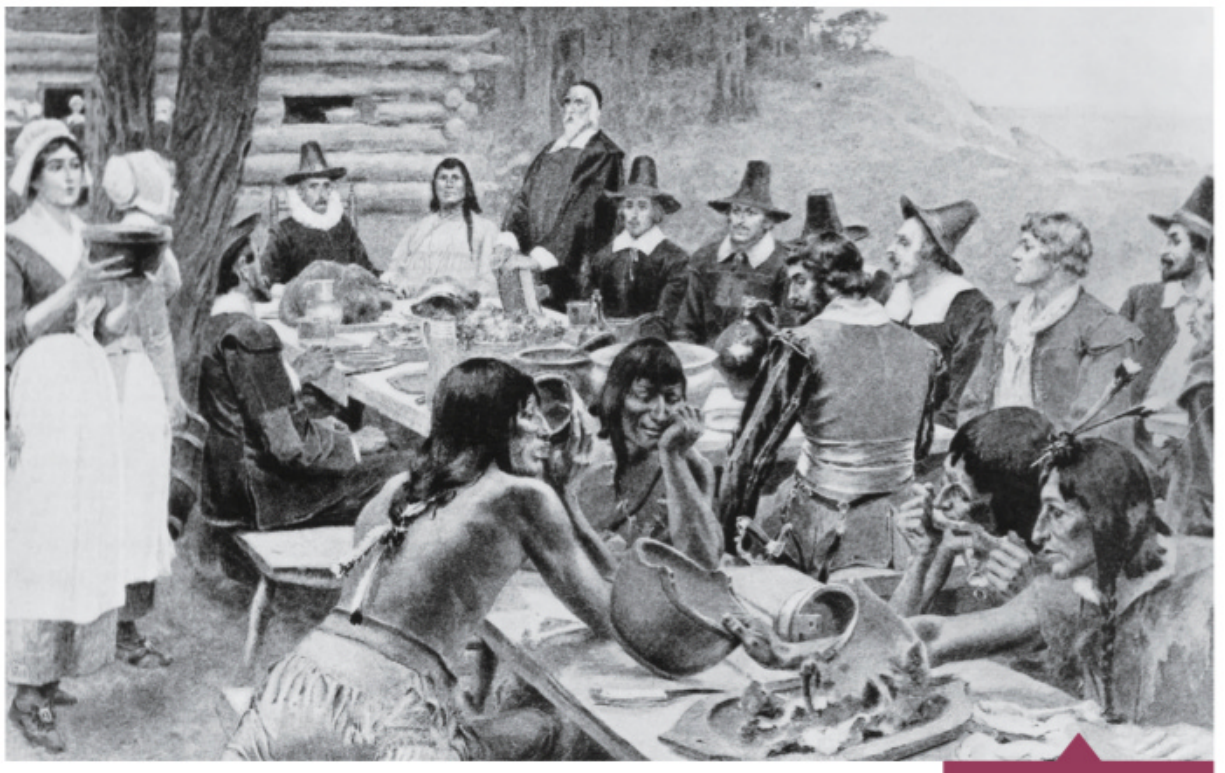
PROTECTING RIGHTS

PARTNERS Jolie and **Van Bueren** *(below)* are collaborating with Amnesty International on two books for children about their rights

ESTEEMED COMPANY Van Bueren is an honorary member of the Queen's Counsel because of her contributions to global law

54 Number of articles in the U.N. convention that define children's rights and how governments should work together to ensure them

COURTESY GERALDINE VAN BUEREN



This 1897 illustration by W.L. Taylor helped spread a romanticized image of "the first Thanksgiving" that still dominates

A better way to teach kids about Thanksgiving

By Olivia B. Waxman

IF YOU LEARNED ABOUT THANKSGIVING IN AN AMERICAN elementary school, chances are you learned that the holiday commemorates how the Pilgrims of Plymouth, Mass., fresh off the *Mayflower,* celebrated the harvest by enjoying a potluck-style dinner with their friendly Indian neighbors.

But while that story is inspired by a real 1621 meal, it reflects neither the 17th century truth nor the 21st century understanding of it. American public memory of Thanksgiving comes from the 19th century—and it can sometimes seem stuck there. An elementary school in Mississippi, for example, drew backlash for a Nov. 15 tweet that included photos of kids dressed up as Native Americans, with feather headbands and vests made of shopping bags.

Images like those have deep roots in American education, dating back to the decades after Abraham Lincoln declared a day of Thanksgiving in 1863. The Puritan separatists were rebranded "Pilgrims," and an 1889 novel that described their Thanksgiving as an outdoor feast became a best seller. The growing ad industry helped spread popular images of the tale, not least to classrooms. Drawing in part on depictions of Native Americans in early westerns, teachers developed skits to make the sentimental stories stick. By the 1920s, Thanksgiving was the most talked-about holiday in U.S. classrooms. The parts that made the colonists look bad were left out.

This was no coincidence. A wave of immigration and urbanization around the turn of the 20th century led to a surge of both nativism and nostalgia; one 1887 cartoon compared noble-looking Pilgrims confidently striding off the *Mayflower* with the huddled masses of the day. In the 1940s and '50s, as the Cold War drove another wave of concern about outsiders, imagery of Pilgrims again exploded.

In some schools, Thanksgiving became one of the only times Native Americans were discussed, often leaving students with a mistaken, and damaging, impression. "There's a widespread assumption that Indians have disappeared," says historian David J. Silverman. "That's why non–Native Americans feel comfortable dressing up their kids in costumes."

MANY CLASSROOMS are beginning to change. Educators and parents are trading ideas and resources on social media. *The Thanksgiving Play* by Larissa FastHorse, a member of the Rosebud Sioux Tribe in the Sicangu Lakota Nation, has become one of the most produced plays in the U.S. A young readers' edition of Roxanne Dunbar-Ortiz's *An Indigenous Peoples' History of the United States* was released in July.

And on a recent Saturday morning in Washington, D.C., about two dozen teachers went to the National Museum of the American Indian to learn a better way to teach the Thanksgiving story. But first they had to do some studying of their own—including a true-false quiz. Did the people many of us know as Pilgrims call themselves Separatists? Did the famous meal last three days? True and true, they shouted loudly in unison.

But other statements drew long pauses or the soft murmurs of people nervous about saying the wrong thing in front of a group. Renée Gokey, the museum's teacher-services coordinator and a member of the Eastern Shawnee Tribe of Oklahoma, waited patiently for them to respond. When Gokey explained that early Thanksgivings celebrated the burning of a Pequot village in 1637 and the killing of Wampanoag leader Massasoit's son, attendees gasped audibly.

"I look back now and realize I was teaching a lot of misconceptions," Tonia Parker, a second-grade teacher at Island Creek Elementary School in Alexandria, Va., told TIME.

Teachers like the ones at the workshop know that change is coming, and state social-studies standards increasingly prompt students to look at history from multiple perspectives. Plus, teaching a better lesson about gratitude is something anyone can get behind. At the workshop in Washington, after learning something new, participants learned to say *Wado*. That's Cherokee for "Thank you." ◻

FREDERIC LEWIS—ARCHIVE PHOTOS/GETTY IMAGES

From army vet to physicist
Josh learned how on YouTube. What will you learn?
"After I got back from my third deployment in Iraq in 2011, I got a job as a janitor at a high school. One day in the library I started reading *A Brief History of Time* by Stephen Hawking. I was hooked. I realized then that I wanted to be a physicist. But I only had a 10th grade math education. So I taught myself trigonometry and calculus by watching videos on YouTube. If I didn't understand something, I'd pause the video and find other videos explaining it until I figured out what I was missing.
I learned enough math to get into Radford University and I graduated with honors! I'm now in my dream job as a scientist, studying the stars every day. I can't ever see myself doing anything else. It's like reaching for the unattainable and actually grabbing it."
Watch Josh's story: youtube.com/JoshLearnedHow
YouTube

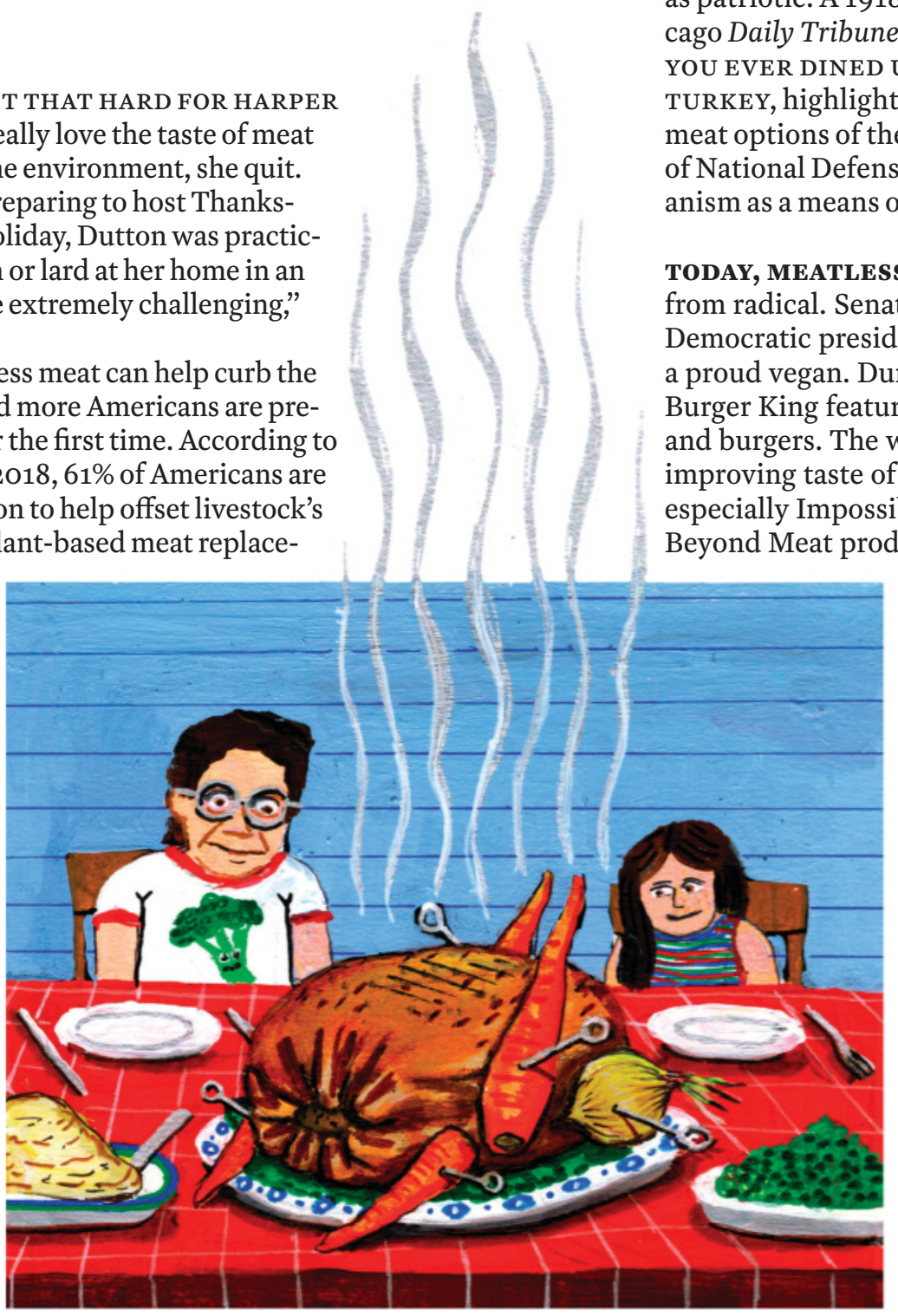
Thanksgiving, hold the turkey

By Rachel E. Greenspan

BECOMING A VEGETARIAN WASN'T THAT HARD FOR HARPER Dutton. The 26-year-old doesn't really love the taste of meat anyway. So this summer, to help the environment, she quit.

What's been more difficult is preparing to host Thanksgiving dinner. Weeks before the holiday, Dutton was practicing making stuffing without bacon or lard at her home in an Atlanta suburb. "It is proving to be extremely challenging," she says.

As evidence grows that eating less meat can help curb the effects of climate change, more and more Americans are preparing meat-free holiday meals for the first time. According to a Nielsen poll taken in December 2018, 61% of Americans are willing to reduce meat consumption to help offset livestock's environmental impacts. Sales of plant-based meat replacements in the U.S. have grown 31% over the past two years, according to a report by the data-technology company Spins commissioned by plant-based-food interest organizations.



Tofurky, an alt-meat brand famous for its eponymous tofu-based turkey replacement, has barely been able to keep up with the increased demand. In February, the company had to bring in a $7 million private investment to meet production needs for 2019. "We were not ready for what seems to have been the tipping point being met," says Jaime Athos, the CEO. "Honestly, we didn't expect it to happen so fast."

Evolving attitudes toward vegetarianism in the U.S. have contributed greatly to the plant-based industry's growth, says Adam Shprintzen, author of *The Vegetarian Crusade* and an assistant professor of history at Marywood University in Scranton, Pa. Though some adopted vegetarianism in the 19th century simply because meat was so expensive, the practice was historically associated with movements like women's rights, abolitionism and economic justice, casting the choice to avoid meat as a statement.

"Before 1900, generally speaking, vegetarianism is seen as kind of a radical social-reform movement tied to any number of social-reform movements in the U.S.," Shprintzen says. "Vegetarianism as a movement undergoes a pretty significant transformation in the U.S. kind of neatly at the turn of the 20th century." As the notion that a meatless diet could improve personal health gained traction, more meat alternatives became available. Being vegetarian no longer meant being stuck with vegetables and rice.

During World War I, it was even seen as patriotic. A 1918 article from the Chicago *Daily Tribune,* headlined HAVE YOU EVER DINED UPON THE MOCK TURKEY, highlighted the alternative meat options of the day, as the Council of National Defense promoted vegetarianism as a means of rationing meat.

TODAY, MEATLESS DIETS are far from radical. Senator Cory Booker, a Democratic presidential candidate, is a proud vegan. Dunkin' Donuts and Burger King feature meatless sausages and burgers. The wide availability and improving taste of meat alternatives, especially Impossible Foods and Beyond Meat products, make going vegetarian much easier.

But Americans may not be ready to skip meat at Thanksgiving since the holiday and turkey are so intertwined. Alexander Hamilton reportedly once said, "No citizen of the U.S. shall refrain from turkey on Thanksgiving Day," and every year, the U.S. President marks that tradition by pardoning a turkey on the White House lawn. "It's part of us, it's part of our culture, it's imbued within who we are as Americans," says Shprintzen.

Indeed, only 5% of Americans say they are full vegetarians, according to Gallup polling data. But Darren Seifer, an analyst at market research firm NPD, predicts more vegetarian options will appear on holiday tables this year, as NPD data shows 18% of adults in the U.S. are trying to eat more plant-based foods. And for vegetarian home chefs like Dutton who are making the effort this year, the tide feels like it's turning just a bit—as long as her guests like the stuffing. ◻

ILLUSTRATION BY BRANDON CELI FOR TIME

LOVE YOUR HEART

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THE DEFINING

IDEA

OF 2019

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IDEAS

Most ideas exit the zeitgeist as quickly as they enter. The ones that last tend to offer something new: a powerful argument, a fresh perspective, a sign of things to come. From political crises to technological revolutions, from fast food to fashion, the ideas that shaped this year are wildly different. But odds are you've had a conversation—maybe even a debate—about at least one of them. Likely more.

HOW THE ELITES LOST THEIR GRIP

In 2019 America's 1% behaved badly—and helped bring about a reckoning with capitalism

By Anand Giridharadas

ON MARCH 29, 2003, AT A WEDDING RECEPTION IN THE HARVARD FACULTY Club, Lawrence W. Reed gave a toast in honor of the friend whom he was serving as best man—one Joseph P. Overton. Overton had worked at Dow Chemical; he had since become an executive at a free-market, small-government think tank in central Michigan. Among his duties at the Mackinac Center for Public Policy was raising money, and in doing so, he had made a brochure that would become his legacy. Overton was trying to describe the role of think tanks in a society, and he posited an idea that would come to be called the Overton window. In a given society, at a given moment, there is a range of policies politically acceptable to the mainstream. (A 70% top tax rate and a 20% top tax rate are both within this window in America today; abolishing taxes is not.) Generally, the theory went, politicians will only propose ideas that fall within the window. It falls to think tanks (and others) to propose unpopular things outside of the window in the hope of shifting the window and making the previously unthinkable achievable. Overton was an ardent libertarian who pushed ideas like school choice—and, according to Reed's wedding toast, he had on occasion resorted to more extreme methods of moving the window of the possible, "including the time," Reed recounted that day, "we flew in a Cessna 172 in broad daylight at treetop level 150 miles into war-torn Mozambique to assist armed rebels fighting the Marxist regime there." Overton died just weeks after his wedding.

Were Overton still alive, he would be pushing 60—and might be aghast to learn that his "window," having become famous after his death, is now invoked to describe America's great, unlikely backlash against the system he defended so ardently: capitalism.

ILLUSTRATIONS BY SHOUT FOR TIME

A democratic socialist—Bernie Sanders—is among the top contenders to be the next Democratic nominee for U.S. President. His rival and fellow Senator, Elizabeth Warren, is also among the top tier of candidates, declaring herself a capitalist who wishes to transform American capitalism as we know it, with a wealth tax, a Green New Deal and the elimination of private health insurance. A more centrist candidate, Mayor Pete Buttigieg of South Bend, Ind., illustrated the shifting winds when he recently declared that "neoliberalism is the political-economic consensus that has governed the last 40 years of policy in the U.S. and U.K. Its failure helped to produce the Trump moment. Now we have to replace it with something better." In 2016, the Democratic Socialists of America (DSA) had 5,000 members; since then, its dues-paying membership has multiplied more than tenfold. This new energy on the left terrifies chief executives and billionaires, and yet many of them have been voicing similar alarms about a crisis of capitalism. Ray Dalio, the billionaire co-chairman of the investment firm Bridgewater Associates, warned in April that America faced a "national emergency" in capitalism's failure to benefit more people, and he pronounced the American Dream lost. The anticapitalist impulse has some purchase on the right too. Before he pushed a tax cut that lined the capitalists' pockets, Donald Trump ran, most improbably, as a Republican skeptical of the financial elite's loyalty to Americans. On Fox News, Tucker Carlson has entertained a surprising skepticism of capitalist doctrines and said positive things about Warren.

America loves a capitalist reckoning the way the NFL loves Colin Kaepernick. But it is having one anyway. And if this year that reckoning seemed to reach new intensity, it was because the economic precariousness, stalled mobility and gaping social divides that have for years fueled the backlash now had an improbable sidekick: plutocracy itself and the win-win ideology that has governed the past few decades. This year, America's ultra-elites seemed to bend over backward to lend support to the idea that maybe the system they superintend needs gut renovating. As a political movement bubbled up to challenge their wealth and power, the elite's own misbehavior trickled down. And where the two met, ideas that once seemed unutterable started, to many, to sound like the future.

HISTORY IS THE STORY of conditions that long seem reasonable until they begin to seem ridiculous. So it is with America's present manic hypercapitalism.

Until recently, it seemed normal that a technological revolution that began with promises of leveled playing fields had culminated in an age of platform monopolies. Normal that businesspeople should try to make as much money as possible by paying as little as possible in taxes and wages, then donate a fraction of the spoils to PR-friendly social causes. Normal that economic security for most Americans was becoming a relic of the past. Normal that people in the street-level marijuana business go to prison while people in the business of selling ads to Russian intelligence go on magazine covers. Normal that bankers could shatter the world economy with their speculating, and that they would be among the few to be made whole after the crisis.

For years, there have been voices trying to denormalize this state. There were protests in Seattle in 1999, there was Occupy in 2011, there was the DSA, there was the World Social Forum to rival the World Economic Forum, there was, eternally, Bernie Sanders saying the exact stuff he is still saying today, there were civic groups trying to organize workers and poor communities, there were outcasts in Silicon Valley warning that Mark Zuckerberg wasn't really about human connection. But America was in the grips of the ideological consensus that Buttigieg described. Hypercapitalism was the intellectual stadium in which

the country played. There was a left side of the field, more wary of capitalism's extremes, and a right side of the field, prone to capitalist boosting. But the stadium, as Overton understood, demarcated the boundaries of the debate for most people: Capitalism, more or less as we practice it, is our system, and it is the best system, so how do we tweak it to make it better?

Then, in 2016, something happened. Sanders ran for President. He built a formidable national movement, powered by small donations, and won 22 states—mind you, as a democratic socialist in the United States of America. Sometimes the thing that could never happen happens, and it makes people doubt their sense of reality. And in that election cycle, if Sanders discredited capitalism as a conscious project, his cause received unexpected, unintentional help from the man who would become President. Trump ran as a flamboyant capitalist, wary of certain aspects of capitalism, but promising that his capitalist mind and his capitalist fortune would make him a uniquely gifted, uniquely incorruptible President. When that turned out not to be the case, Trump not only damaged himself but the idea of the selfless billionaire savior too.

The Overton window was moving. Then came the 2018 midterms and a new wave of Democratic candidates—most prominently, Representative Alexandria Ocasio-Cortez of New York—questioning capitalism-as-capitalism in a way that seemed unfamiliar and fresh. As the 2020 campaign approached, Warren jumped into the race, a beneficiary of the opening Sanders had helped carve for capitalist-critical aspirants to America's highest office. With her now famous litany of "plans," Warren detailed an agenda that would put American business in a headlock. That she and Sanders, both veritable enemies of Big Business, are among the top candidates shows how much the politics of capitalism has changed.

BUT, POLITICS CAN be abstract; it can be complicated; people are busy living. Politics often benefits from scandal, from prominent misbehavior, from a dramatization of the discourse. And this was what was so remarkable about 2019: because of the coming election in these populist times, it was already a year potentially full of trouble for the plutocrats—or plutes, as I like to call them (to save space and, thus, paper and, therefore, trees). But, almost as if to assist the cause, the plutes seemed this year to put on an extended exhibit of performance art whose plain, if unstated, thesis is that plutocracy is maybe a bad idea.

Exhibit A: Early in the year, Amazon, run by one of the world's richest people, Jeff Bezos, announced it was pulling out of its planned Hydra-like "second headquarters" in New York City. It seemed to come as a surprise to Bezos that in a city where a significant number of people struggle to keep up with rising costs and stagnant pay, many weren't excited by the idea of the state and city giving his company a few billion dollars in tax breaks that wouldn't be available to a regular Joe starting a business. In the debate that erupted, the conventional wisdom that it is always better to attract jobs, even by offering companies major incentives, came to be questioned.

Exhibit B: The college-bribery scandal. Wealth and privilege are already great guarantors of securing a spot in a university. What the scandal unearthed by federal prosecutors illustrated is that many very rich people are not satisfied with the general advantage of hyperprivilege, nor even with the specific advantage of donations to universities that give you an edge but not a guarantee. The ascendant critics of capitalism in American politics have called the system "rigged" for years. But here was a biopsy of the rigging. The most revealing subplot of the college scandal was the arrest of Bill McGlashan. Many others ensnared in the scheme had bolder-faced names, but McGlashan was significant because he had become a symbol of the hope, promoted by so many of the winners of our age, that they would lead the charge toward a fairer society. McGlashan, through the Rise Fund that he helped create and is managed by his private-equity firm, TPG Growth, had helped popularize the growing field of "impact investing"—in which a fund pursues not only economic returns but also the betterment of the world. He was charged with—and pleaded not guilty to—trying to bribe his son into the University of Southern California, thus depriving the people whom he supposedly helped for a living of a fair shot at that college seat.

Exhibit C: In July, Facebook, on account of just one of the scandals hovering over it, this one involving privacy violations, received a $5 billion fine from the Federal Trade Commission. Now, for you, that may be a big fine. For Facebook, it was such a feathery tickle that the company's stock surged on the news, reaching its highest price in nearly a year. Facebook's massive market power, its dubious behavior in the face of Russian intelligence activities, its fueling of polarization and its enabling of misinformation and even violence were unaffected by the FTC fine—a penalty that, if anything, left the impression that companies like Facebook enjoy near total impunity.

MANY VERY RICH PEOPLE ARE NOT SATISFIED WITH THE GENERAL ADVANTAGE OF HYPERPRIVILEGE

Still, in response to these scandals and outrages, many in the business world declared

themselves newly interested in reform. The most prominent and heralded instance this past year was a statement by the Business Roundtable, an umbrella organization whose members are the chief executives of many of America's largest companies. For decades, the roundtable has clung to a particular interpretation of the purpose of a business—that it is solely to make money for shareholders. With its new statement, issued in August, the roundtable updated its view: "Business Roundtable Redefines the Purpose of a Corporation to Promote 'An Economy That Serves All Americans.'"

IT WAS INSPIRING, LIMITED STUFF. What it really revealed was how hard it will be for the old-guard capitalists to change at all. The statement was a call for every corporate signatory to decide, voluntarily, to behave in ways more supportive of people and the planet. As far as I know, no company, because of the statement, announced the cessation of practices in lobbying, tax avoidance, employment or other realms. When I publicly questioned the teeth of a pledge that reminded me of my own pledges not to eat fries, Jamie Dimon, the chief executive of JPMorgan Chase and chairman of the roundtable, contacted me. We talked on the phone for half an hour. He was incredulous that I didn't trust that the pledge would mean action. I challenged him to give the pledge teeth. Why not begin to lobby for proposals in Congress that would make "stakeholder capitalism" the law, not just an airy promise? Why not excommunicate companies that lobby for things contrary to the stated values of the roundtable? He said the roundtable wasn't a "police force." When I put to him that many signatories of this pledge to treat people better were known to be fairly exploitative of workers, he pushed back with words that illustrate that self-reformed capitalism is a lot like unreformed capitalism, but with better public relations. He said that he knew the chief executives I was talking about, and that he liked them; they were good people; he was sure they were kind to employees. Plus, he said, "A lot of people just don't like to work." (A spokesperson for Dimon later said to the Washington *Post*, "These quotes don't reflect the conversation.")

In public relations, an important term of art is "getting out ahead of the story." If bad news about you is coming, pre-empt it by telling the story on your terms. The Business Roundtable's move, long on rhetoric, short on support for any actual reforms with teeth, seemed very much in that tradition: get out in front of the backlash to extreme capitalism by proposing an optional Capitalism Lite. Then there is the other classic way in which the plutes get out in front of such backlashes: philanthropy. If you're Goldman Sachs, contribute to a financial crisis that costs millions of men and women their homes and livelihoods, then give back (and scrub your name) through something like the "10,000 Women" program to mentor entrepreneurs.

Yet this year more people seemed to see through this take-and-give playbook. A striking moment came in late March when New York State, led by its new attorney general, Letitia James, filed a lawsuit against members of the Sackler family and others whom it accused of abetting the opioid crisis. In addition to alleging malfeasance in selling the drugs, the complaint made a claim about the use of philanthropy to lubricate wrongdoing. "Ultimately, the Sacklers used their ill-gotten wealth to cover up their misconduct with a philanthropic campaign to whitewash their decades-long success in profiting at New Yorkers' expense." The suit cited donations to many arts institutions, resulting in Sackler wings and institutes and centers, while also serving to cleanse their name in a way that allowed the grim machinery of drug peddling to grind on for years.

Then there was the Jeffrey Epstein case. Epstein, the late sexual predator and maybe tycoon, gave endless ammunition to plutocracy's critics. Here was a man who had allegedly trafficked and raped children; who had been convicted of serious offenses; and who managed, through deftly arranged philanthropy and social climbing, to re-establish himself in high society. Epstein ingratiated himself with Harvard. He gave money to the Massachusetts Institute of Technology and was given the chance to meddle in its research—a phenomenon that one writer aptly called "sugar-daddy science." He even spent a surprising amount of time with Bill Gates, a children's advocate who has since apologized for his lapse in judgment. Yet what Epstein revealed was less individual lapses than systemic rot in our culture—especially at our universities, which have become drive-through reputational laundromats.

WHAT EPSTEIN REVEALED WAS LESS INDIVIDUAL LAPSES THAN SYSTEMIC ROT IN OUR CULTURE

As the chances have increased that a candidate outside the neoliberal consensus will win the nomination, we have begun to see the Great Plute Freakout of 2019. A wave of plutes have

EPSTEIN: STEPHANIE KEITH—GETTY IMAGES; HUFFMAN: NIC ANTAYA—THE BOSTON GLOBE/GETTY IMAGES

From left: a protest group holds signs of Jeffrey Epstein in front of the federal courthouse in July; Felicity Huffman arrives in court for a hearing in the college-admissions case in September

weighed in about the dangers of a Sanders or Warren presidency. Although their obvious motivation is clear—not wanting to lose their money to the federal government—that's seldom how they argue it. Instead, they engage in economic concern trolling—framing their self-preservational worries as being, in fact, worries about you and yours. Zuckerberg of Facebook warned us that taxing wealth would limit the diversity of philanthropic efforts in medical research. Leon Cooperman, a hedge-fund billionaire, warned us that taxing wealth would curb the good works that he and his friends do. And then, in the cherry on top, Michael Bloomberg, the former New York City mayor and media billionaire, made moves to launch his own bid for the Democratic nomination. Peak billionaire may be a billionaire deciding to possibly attempt to purchase a party nomination because of his fear that some candidates in the race aren't plutophilic enough—and then running against a maybe-billionaire who promised that being a billionaire would make him specially incorruptible and now is in impeachment proceedings over his alleged corruption.

America's crisis of capitalism has cousins abroad. In Chile, an increase in subway fares triggered massive antigovernment, pro-reform protests in recent months, killing at least 20 and injuring more than 1,000. A slogan of the protests has been "Neoliberalism was born in Chile and will die in Chile." The protesters have been demanding that education and health care be established as rights under the Chilean constitution. Argentina has also been rocked by protests, as it grapples with an economic crisis, rising hunger, and the angry fallout from an International Monetary Fund bailout last year. In Britain, the chaos of Brexit drags on, fueled by feelings that the economy wasn't working for enough people and questions about whether billionaires should exist.

THE MERCY OF ALL THIS elite failure and backlash is this: the ongoing collapse of any pretense of selflessness among the winners of our new Gilded Age.

If a single cultural idea has upheld the disproportionate power of this class, it has been the idea of the "win-win." They could get rich and then "give back" to you: win-win. They could run a fund that made them sizable returns and offered you social returns too: win-win. They could sell sugary drinks to children in schools and work on public-private partnerships to improve children's health: win-win. They could build cutthroat technology monopolies and get credit for serving to connect humanity and foster community: win-win.

As this seductive idea fizzles out, it raises the possibility that this age of capital, in which money was the ultimate organizing principle of American life, could actually end. Something could actually replace it. After all, a century ago, America was firmly planted in the first Gilded Age—and then it found its way into the Progressive Era and the New Deal, an era of great public ambition. Business didn't go away; it wasn't abolished; capitalists didn't go into gulags. It was just that the emphasis of the society shifted. Money was no longer the lodestar of all pursuits.

The choice facing Americans is whether we want to be a society organized around money's thirsts, a playground for the whims of billionaires, or whether we wish to be a democracy. The second Gilded Age will end at some point. The question is what comes next: What Trump offers is tribal nationalism, strongman politics and plutocrat-friendly policy greased by populist rhetoric. The other possibility is that, as occurred a century ago, a gilded age collapses into an age of reform: an era defined culturally by renewed public purpose and politically by the restoration of the state in areas where people are too powerless to solve problems of their own—defined by the use of shared institutions to solve shared problems. You can already see glimpses of how an age of reform is being dreamed up. Higher taxes on the very fortunate, to be sure; more regulation and worker protections and the like. An attack on climate change almost as dramatic as climate change itself. Programs to give workers greater security. It would be an age in which it was cooler, more thrilling, more admired, more viable to change the world democratically.

If there is one thing that could hasten the end of the age of capital and accelerate the coming of an age of reform, it is a vigorous new culture of joining in American life. Not clicking, not liking, not retweeting, not TikTokking, not screaming at MSNBC/Fox, but actually joining: political movements and civic organizations with memberships so vast that politicians cannot ignore them. The age of capital has been facilitated by a remarkable solidarity among the ultra-fortunate. Putting that period in the museum will take other, broader solidarities.

Giridharadas is a TIME editor at large and the author of Winners Take All: The Elite Charade of Changing the World

NOT CANCE

No one is saying people in power should be unfairly silenced. But they should be

"HAS CANCEL CULTURE GONE TOO FAR?" THE QUESTION FELT IMPOSsible to ignore this year. Google it and you'll see pages of op-eds, often concluding, yes, it has gone too far, and the Internet mob is out of control.

Cancel culture became so central to the discourse in 2019 that even President Obama weighed in. The idea is that if you do something that others deem problematic, you automatically lose all your currency. Your voice is silenced. You're done. Those who condemn cancel culture usually imply that it's unfair and indiscriminate.

The problem with this perspective is cancel culture isn't real, at least not in the way people believe it is. Instead, it's turned into a catch-all for when people in power face consequences for their actions or receive any type of criticism, something that they're not used to.

I'm a black, Muslim woman, and because of social media, marginalized people like myself can express ourselves in a way that was not possible before. That means racist, sexist, and bigoted behavior or remarks don't fly like they used to. This applies to not only wealthy people or industry leaders but anyone whose privilege has historically shielded them from public scrutiny. Because they can't handle this cultural shift, they rely on phrases like "cancel culture" to delegitimize the criticism.

Since the #MeToo hashtag went viral in 2017, more women have spoken out about their experiences with sexual harassment and assault. While many people have applauded this movement, some men now say they fear even casual interactions with women will get them canceled.

Only that's not what's happening. While some powerful men may not have the status they once did, they have hardly been canceled. Louis CK admitted to masturbating in front of female comedians. He was dropped by his agency, and HBO and Netflix cut ties with him, but he recently sold out five shows in my home city of Toronto. Harvey Weinstein—who has been accused of sexual misconduct by more than 80 women (he has denied the allegations) and charged with predatory sexual assault, a criminal sexual act and rape (he has pleaded not guilty)—lost his job, but when he showed up at a young artists' event in October, a comedian who called him out in her set was booed and two women who confronted him were asked to leave. When political journalist Mark Halperin, who denied allegations of unwanted sexual contact but acknowledged that his "behavior was inappropriate and caused others pain," faced pushback over a new book, his publisher spoke to the New York *Post* decrying "this guilty-until-proven-innocent cancel culture where everyone is condemned to death or to a lifetime of unemployment based on an accusation that's 12 years old." That criticism is being compared to death tells you a lot about some of the people arguing that cancel culture has run amok.

WHILE SOME POWERFUL MEN MAY NOT HAVE THE STATUS THEY ONCE DID, THEY HAVE HARDLY BEEN CANCELED

In September, comedian Shane Gillis was fired from *Saturday Night Live* after videos of him making racist jokes surfaced. Comedian Bill Burr

condemned the firing saying, "You f-cking millennials, you're a bunch of rats, all of you," and "None of them care, all they want to do is get people in trouble." But having a job at *SNL* isn't a human right. And although Gillis' defenders have fretted about the sanctity of free speech in comedy, the audience of a comedic TV show should get to speak out about whether they want to watch someone who has espoused this type of humor. That's actually the marketplace at work. Why should Gillis be able to utter racist things but those affected by hate speech shut their mouths? Gillis is still a touring comedian. He will be fine.

ALTHOUGH USE OF THE TERM spiked this year, the idea of cancel culture has been bubbling for a while. In 2016, Kim Kardashian shared clips revealing that despite Taylor Swift's claim that Kanye West didn't warn her about a provocative lyric, he actually did give her a heads-up and she thanked him. Swift said she was "falsely painted as a liar."

LED

held accountable By Sarah Hagi

But soon #TaylorSwiftIsCanceled was trending.

"When you say someone is canceled, it's not a TV show. It's a human being," Swift told *Vogue* this summer. "You're sending mass amounts of messaging to this person to either shut up, disappear, or it could also be perceived as, kill yourself." There aren't many people who can understand what Swift went through. To have so many people turn on you is surely upsetting. But how exactly was she canceled? Though many people believed that this white woman had disingenuously portrayed herself as a victim of a black bully and made clear that they didn't find that acceptable, Swift has remained one of the highest-paid celebrities in the world.

The conversation reached a new level in October when Obama expressed concern about the way people are called out on social media. "This idea of purity and you're never compromised and you're always politically woke and all that stuff, you should get over that quickly," he said at a summit. He didn't use the term, but the assumption was he was condemning cancel culture.

Now I am certain Obama wasn't talking about Louis CK in his call for us to be less judgmental. He was pointing out that people are complicated and make mistakes, though I'm not convinced they are being written off in the way he thinks. It should also go without saying that Swift's perceived offense should not be lumped in with Weinstein's alleged crimes. But that's another problem with the conversation about cancel culture. It oversimplifies. The term is used in so many contexts that it's rendered meaningless and precludes a nuanced discussion of the specific harm done and how those who did it should be held accountable.

Rather than panicking that someone might be asked to take a seat, we would all do well to consider the people who are actually sidelined: those who lose professional opportunities because of toxic workplaces, who spend years dealing with trauma caused by others' actions, who are made to feel unsafe.

I write frequently about racism and Islamophobia and have received more death threats, calls for my firing and racist insults than I can keep track of. But when people who believe cancel culture is a problem speak out about its supposed silencing effect, I know they're not talking about those attacks. When they throw around terms like "cancel culture" to silence me instead of reckoning with the reasons I might find certain actions or jokes dehumanizing, I'm led to one conclusion: they'd prefer I was powerless against my own oppression.

Hagi is a writer based in Toronto

ILLUSTRATION BY TAYLOR CALLERY FOR TIME; AREA 51: GETTY IMAGES

THEY CAME IN PEACE

How the Area 51 conspiracy was reignited in 2019

It was nearly impossible to check social media over the summer and miss the Area 51 fervor. Yes, that old conspiracy theory. While folklore surrounding the Nevada Air Force base has permeated pop culture for decades, a new Instagram-fueled trend of exploring forbidden locations—even Chernobyl had quite a few visitors this summer—revived the conspiracy that the U.S. government has proof of extraterrestrials at the remote military site.

In June, when college student Matty Roberts suggested online that revelers band together to "storm" Area 51, it went viral instantly. Roberts even added that raiders should "Naruto run" through the gates: an homage to another of 2019's biggest memes, of anime character Naruto. Roberts soon said that he was joking, but tens of thousands still wanted to gather near the (admittedly unlikely) aliens. In came Alienstock, an eclectic music festival held in ill-equipped Rachel, Nev., the town nearest to the site, which boasts one business and fewer than 100 residents.

Amazingly, 3,000 attendees came in peace to the festival on Sept. 19, and Alienstock turned out to be much more a camplike retreat than a raucous search for extraterrestrials, much to the relief of military officials and Rachel's residents. In fact, it proved a welcome bit of levity. Even Area 51's guards were caught laughing as tinfoil-clad, alien-costumed attendees ran like Naruto through the desert. —*Rachel E. Greenspan*

END OF THE UNICORN

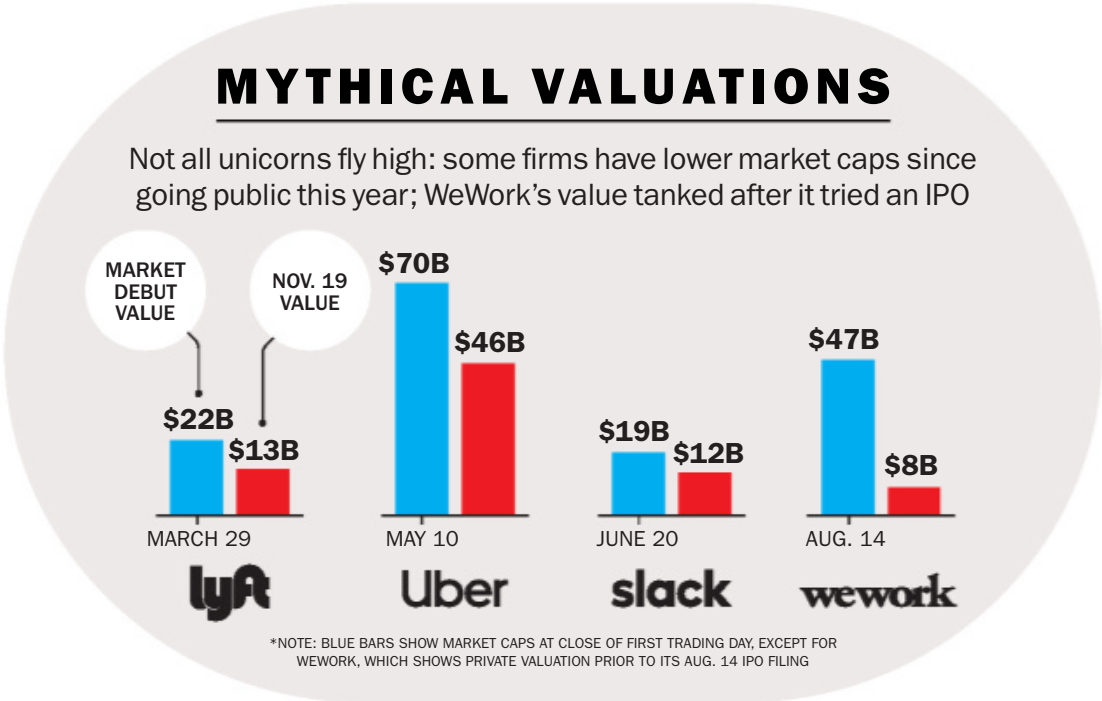
Surprise! Wall Street prefers profits to elevating the world's consciousness

By Jessica Powell

WHEN THE RIDE-SHARING APP LYFT RANG THE opening bell at its IPO in March, pink confetti rained down on the trading floor, a reference to the company's current pink logo more than its long-retired one: a furry pink mustache that sat atop drivers' cars. The wacky mustache was emblematic of Silicon Valley's live-for-the-moment startup culture, where entrepreneurs focus on quickly scaling their product to millions of people, prioritizing high user growth over immediate profitability. For much of the past two decades, consumer-tech companies have carried the mantle for America's long-held obsession with entrepreneurs, lifting Silicon Valley and the tech industry to ever loftier heights in the national consciousness.

While enterprise software businesses like Box and VMware have steadily raked in billions by building collaboration tools, security solutions and IT infrastructure, it's been the likes of Google, Facebook and, more recently, Uber, Lyft and Airbnb that have been the hottest places to work, the companies satirized on TV shows and the ones lauded (and, more recently, criticized) in the media.

This is why 2019 was to be the year of the "unicorns"—the IPOs of technology companies valued at more than $1 billion. The most anticipated were in the consumer-technology space, in particular Uber and Lyft. Close behind was the real estate company WeWork, which was never truly a tech company—but packaged itself as such, complete with an ambitious (some might say delusional) CEO and a soaring mission "to elevate the world's consciousness."



Over six months later, Uber and Lyft have shaved off more than a third of their opening share price. WeWork has postponed its IPO, and its CEO has been replaced by two new leaders, neither of whom seems to share their predecessor's interest in building co-working spaces on Mars or housing the world's orphans.

With the exception of Pinterest, the 2019 consumer-tech IPOs have been a disappointment. The unicorns aren't profitable, and it doesn't seem as if they will get there anytime soon.

Some have argued that consumer-technology IPOs have always gone this way. Google and Facebook both weathered notable bumps following their stock-market debuts. But it's important to remember that both of those companies were younger and already profitable when they went public.

THE LATTER UNICORNS may yet prove the naysayers wrong. But for now, if there's any relationship between the early consumer-tech IPOs and this year's flops, it's in the business philosophy that Google, Facebook and their peers inadvertently passed on to future tech company heads, who raised venture-capital money and ran their businesses on the idea that one should prioritize acquiring a huge user base over achieving profitability. If you get the users, the thinking has gone, profitability will figure itself out over time. For a while, it seemed even Wall Street bought into that philosophy—counter-intuitive as patience might be to capitalism.

But in an era in which the cumulative years of "we'll figure things out" seem inextricably linked to Big Tech's lack of foresight around problems of privacy and security, market dominance and content policies, taking a bet on some of the newer unicorns may represent more risk than Wall Street can really bear.

The ride-sharing apps face the threat of regulation of their contracted labor force; WeWork, the reality that no matter how many cucumber slices you artfully arrange in a water jug, it's hard to mask the dubious economics of renting short-term space to risky startup businesses.

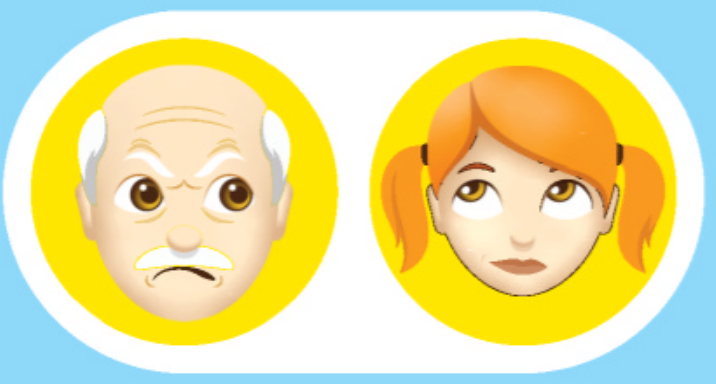
But as drama has swirled the unicorns, the 2019 business-software IPOs have chugged forward in a more predictable fashion, and largely out of the limelight, including videoconferencing software company Zoom and the cybersecurity-focused CrowdStrike.

It's hardly surprising. When you think about it, "move fast and break things"—the old Facebook mantra—is the kind of energetic, anticorporate philosophy that attracts fresh college grads, that emphasizes a break from the past and traditional ways. But for risk-averse Wall Street, a more dependable, if less inspirational, tagline might be "move fast and build reliable software that can be described in complicated B2B jargon and ensure profitability from day one."

Consumer tech is far from dead, and Lyft, Uber and their peers could still pull things off. But don't be surprised if the next big wave of successful IPOs aren't "unicorns" but rather "paper clips"—a bit boring, perhaps, but based on reliable business software. Companies where business-model drama is a bug and not a feature.

Powell is the former head of communications for Google and the author of The Big Disruption: A Totally Fictional but Essentially True Silicon Valley Story

ILLUSTRATION BY JAMESON SIMPSON FOR TIME



GEN Z STRIKES BACK

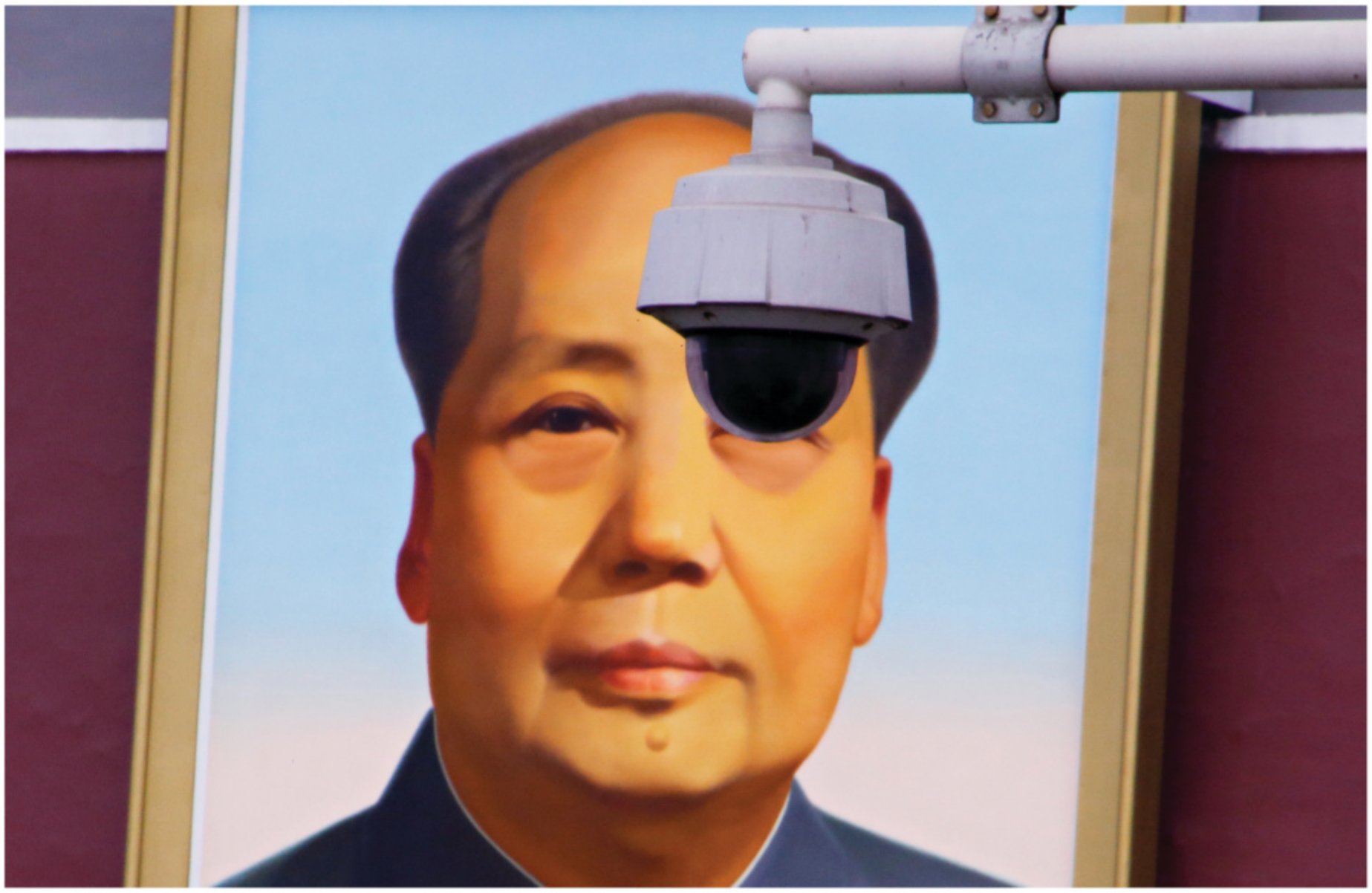
The "OK Boomer" meme captures the tension between the young and old. But is it fair to be so dismissive?

The young people now in high school, college and just spilling out into the workplace, part of Generation Z, are frustrated, angry and scared. In 2019, their exasperation broke out in a firestorm of just two words: "OK Boomer." The meme came about as part of a viral TikTok video —an irritated teenager writes the phrase on a piece of notebook paper in response to a geezer who's gassing on about the folly of youthful idealism—that gave voice to millions of young people who look forward to emerging from college saddled with debt, only to inherit a decrepit financial infrastructure and, far worse, a rapidly heating planet.

The phrase isn't just a teenage fad: Chlöe Swarbrick, a 25-year-old New Zealand politician, used it as a sly dis when an older colleague cut into her Parliament speech on climate change. (When she was told that he was actually a member of Generation X, she responded that "boomer is a state of mind.") And the sentiment may be a divisive force in the U.S. presidential election; it percolated beneath the surface of every one of this year's Democratic debates. The field of candidates stretches from the young (Pete Buttigieg, 37) to the rather old (Joe Biden, 77, and Bernie Sanders, 78), with each end of the spectrum expressing skepticism of the other. Is the country more in need of youthful energy or the wisdom of experience? "OK Boomer" is shorthand for all that tension.

Gen Z-ers and millennials who hold the boomers responsible for milking the system dry are understandably resentful. Yet many in the older crowd have volubly indicated their hurt feelings, asserting that the meme represents a gross generalization: plenty of them do care about the environment, and still have the old ecology-symbol-emblazoned jean jackets to prove it. Many have been politically engaged for decades. Maybe this is the time to remind *everybody* of a much older catchphrase, a meme of its day. The words "Don't trust anyone over 30" originated in the mid-1960s with Jack Weinberg, an environmental activist and a leader of Berkeley's Free Speech Movement, a group of young radicals who fought for the kind of change that many in today's younger generations also desire. It's young people's right to want to change the world, and to find their own words, but it's the action behind the words that counts. OK, Gen Z. Show us what you've got.

—Stephanie Zacharek



THE FIGHT FOR OUR FACES

China shows the worrying future of the surveillance state By Charlie Campbell

EVERY MORNING, MRS. CHEN DONS HER BRIGHT PURPLE TAI CHI pajamas and joins the dozen or so other members of Hongmen Martial Arts Group for practice outside Chongqing's Jiangnan Stadium. But a few months ago, she was in such a rush to join their whirling sword-dance routine that she dropped her purse. Fortunately, a security guard noticed it lying in the public square via one of the overhead security cameras. He placed it at the lost and found, where Mrs. Chen gratefully retrieved it later.

"Were it not for these cameras, someone might have stolen it," Mrs. Chen, who asked to be identified by only her surname, tells TIME on a smoggy morning in China's sprawling central megacity. "Having these cameras everywhere makes me feel safe."

What sounds like a lucky escape is almost to be expected in Chongqing, which has the dubious distinction of being the world's most surveilled city. The seething mass of 15.35 million people straddling the confluence of the Yangtze and Jialing rivers boasted 2.58 million surveillance cameras in 2019, according to an analysis published in August by the tech-research website Comparitech. That's a frankly Orwellian ratio of one CCTV camera for every 5.9 citizens—or 30 times their prevalence in Washington, D.C.

A surveillance camera overlooks Tiananmen Square in Beijing

Every move in the city is seemingly captured digitally. Cameras perch over sidewalks, hover across busy intersections and swivel above shopping districts. But Chongqing is by no means unique. Eight of the top 10 most surveilled cities in the world are in China, according to Comparitech, as the world's No. 2 economy rolls out an unparalleled system of social control. Facial-recognition software is used to access office buildings, snare criminals and even shame jaywalkers at busy intersections. China today is a harbinger of what society looks like when surveillance proliferates unchecked.

But while few nations have embraced surveillance the way China has, it is far from alone. Surveillance has become an everyday part of life in most developed societies, aided by an explosion in AI-powered facial-recognition technology. Last year, London police made their first arrest based on facial recognition by cross-referencing photos of pedestrians in tourist hot spots with a database of known felons. A few months earlier, a trial of facial-recognition software by police in New Delhi reportedly recognized 3,000 missing children in just four days. In August, a wanted drug trafficker was captured in Brazil after facial-recognition software spotted him at a subway station. The technology is widespread in the U.S. too. It has aided in the arrest of alleged credit-card swindlers in Colorado and a suspected rapist in Pennsylvania.

Still, the risks are considerable. As Western democracies enact safeguards to protect citizens from the rampant harvesting of data by government and corporations, China is exporting its AI-powered surveillance technology to authoritarian governments around the world. Chinese firms are providing high-tech surveillance tools to at least 18 nations from Venezuela to Zimbabwe, according to a 2018 report by Freedom House. China is a battleground where the modern surveillance state has reached a nadir, prompting censure from governments and institutions around the globe, but it is also where rebellion against its overreach is being most ferociously fought.

"Today's economic business models all encourage people to share data," says Lokman Tsui, a privacy expert at the Chinese University of Hong Kong. In China, he adds, we are seeing "what happens when the state goes after that data to exploit and weaponize it."

CHINA IS PROJECTED TO HAVE ONE CCTV CAMERA FOR EVERY TWO PEOPLE BY 2022

SOME 1,500 MILES northwest of where Mrs. Chen recovered her purse, surveillance in China's restive region of Xinjiang has helped put an estimated 1 million people into "re-education centers" akin to concentration camps, according to the U.N. Many were arrested, tried and convicted by computer algorithm based on data harvested by the cameras that stud every 20 steps in some parts.

In the name of fighting terrorism, members of predominantly Muslim ethnic groups—mostly Uighurs but also Kazakhs, Uzbeks and Kyrgyz—are forced to surrender biometric data like photos, fingerprints, DNA, blood and voice samples. Police are armed with a smartphone app that then automatically flags certain behaviors, according to reverse engineering by the advocacy group Human Rights Watch. Those who grow a beard, leave their house via a back door or visit the mosque often are red-flagged by the system and interrogated.

Sarsenbek Akaruli, 45, a veterinarian and trader from the Xinjiang city of Ili, was arrested on Nov. 2, 2017, and remains in a detention camp after police found the banned messaging app WhatsApp on his cell phone, according to his wife Gulnur Kosdaulet. A citizen of neighboring Kazakhstan, she has traveled to Xinjiang four times to search for him but found even friends in the ruling Chinese Communist Party (CCP) reluctant to help. "Nobody wanted to risk being recorded on security cameras talking to me in case they ended up in the camps themselves," she tells TIME.

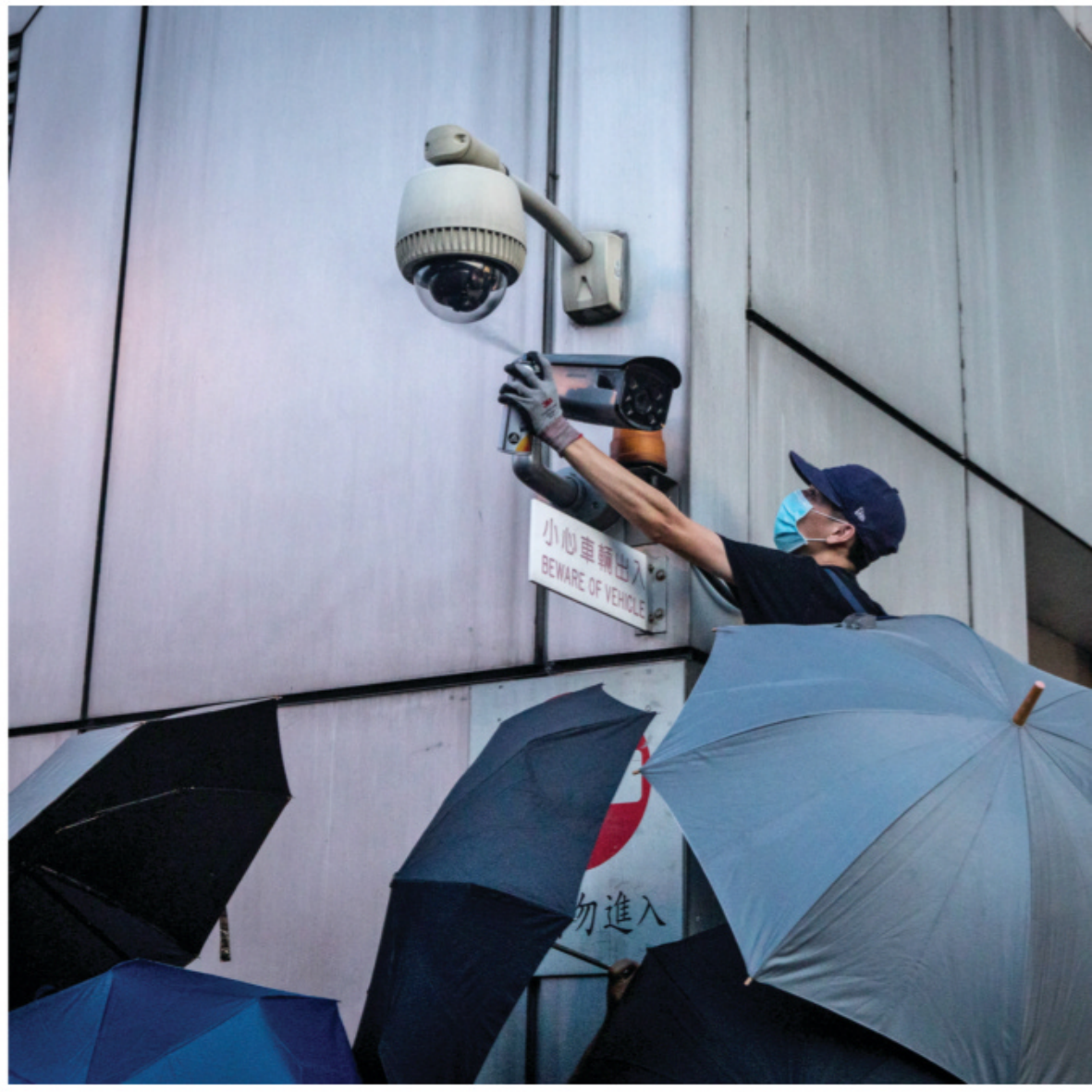
Surveillance governs all aspects of camp life. Bakitali Nur, 47, a fruit and vegetable exporter in the Xinjiang town of Khorgos, was arrested after authorities became suspicious of his frequent business trips abroad. The father of three says he spent a year in a single room with seven other inmates, all clad in blue jumpsuits, forced to sit still on plastic stools for 17 hours straight as four HikVision cameras recorded every move. "Anyone caught talking or moving was forced into stress positions for hours at a time," he says.

Bakitali was released only after he developed a chronic illness. But his surveillance hell continued over five months of virtual house arrest, which is common for former detainees. He was forbidden from traveling outside his village without permission, and a CCTV camera was installed opposite his home. Every time he approached the front door, a policeman would call to ask where he was going. He had to report to the local government office every day to undergo "political education" and write a self-criticism detailing his previous day's activities. Unable to travel for work, former detainees like Bakitali are often obliged to toil at government factories for wages as miserly as 35¢ per day, according to former workers interviewed by TIME. "The entire system is designed to suppress us," Bakitali says in Almaty, Kazakhstan, where he escaped in May.

The result is dystopian. When every aspect of life is under constant scrutiny, it's not just "bad" behavior that must be avoided. Muslims in Xinjiang are under constant pressure to act in a manner that the CCP would approve. While posting controversial material online is clearly reckless, not using social media at all could also be considered suspicious, so Muslims share glowing news about the country and party as a means of defense. Homes and businesses now feel obliged to display a photograph of China's President Xi Jinping in a manner redolent of North Koreans' public displays for founder Kim Il Sung. Asked why he had a picture of Xi in his taxi, one Uighur driver replied nervously, "It's the law."

Besides the surveillance cameras, people are required to register their ID numbers for activities as mundane as renting a karaoke booth. Muslims are forced from buses to have their IDs checked while ethnic Han

THOMAS PETER—REUTERS



A protester covers a camera outside a government office in Hong Kong in July

Chinese passengers wait in their seats. At intersections, drivers are ushered from their vehicles by armed police and through TeraSnap "revolving body detector" equipment. In the southern Xinjiang oasis town of Hotan, a facial-recognition booth is even installed at the local produce market. When a system struggled to compute the face of this Western TIME reporter, the impatient Han women queuing behind berated the operator, "Hurry up, he's not a Uighur, let him through."

China strenuously denies human-rights abuses in Xinjiang, justifying its surveillance leviathan as battling the "three evils" of "separatism, terrorism and extremism." But the situation has been described as a "horrific campaign of repression" by the U.S. and condemned by the U.N. Washington has also started sanctioning companies like HikVision whose facial-recognition technology is ubiquitous across the Alaska-size region. But Western aversion to surveillance is much broader and stems in no small part from abuses like the Facebook/Cambridge Analytica scandal, in which the "scraped" personal information of up to 87 million people was acquired by the political consultancy to swing elections around the world.

China is also rolling out Big Data and surveillance to inculcate "positive" behavior in its citizens via a Social Credit system. In China's eastern coastal city of Rongcheng, home to 670,000 people, every person is automatically given 1,000 points. Fighting with neighbors will cost you 5 points; fail to clean up after your dog and you lose 10. Donating blood gains 5. Fall below a certain threshold and it's impossible to get a loan or book high-speed train tickets. Some Chinese see the benefit. High school teacher Zhu Junfang, 42, enjoys perks such as discounted heating bills and improved health care after a series of good works. "Because of the Social Credit system, vehicles politely let pedestrians cross the street, and during a recent blizzard people volunteered to clear the snow to earn extra points," she says.

SUCH INTRUSIVE GOVERNMENT is anathema to most in the West, where aversion to surveillance is much broader and more visceral. Whether it's our Internet browser history, selfies uploaded to social media, data scavenged from fitness trackers or smart-home devices possibly recording the most intimate bedroom conversations, we are all living in what's been dubbed a "surveillance economy." In her book *The Age of Surveillance Capitalism,* Shoshana Zuboff describes this as "human experience [broken down into data] as free raw material for commercial practices of extraction, prediction, and sales."

A VANGUARD CLUTCH UMBRELLAS ALOFT TO SHIELD THEIR ACTIVITIES FROM PRYING EYES

When it comes to facial recognition, resistance is intense given the huge potential for indiscriminate data harvesting. The E.U. is reviewing regulations to give its citizens explicit rights over use of their facial-recognition data. While tech giants Microsoft and Amazon have already deployed the technology, they are also calling for clear legal parameters to govern its use. Other than privacy, there are equality issues too. According to a study by MIT Media Lab, facial-recognition software correctly identified white men 99% to 100% of the time, but that dipped as low as 65% for women of color. Civil-liberties groups are especially uneasy since facial recognition, despite its widespread use by American police, is rarely cited as evidence in subsequent court filings. In May, San Francisco became the first major U.S. city to block police from using facial-recognition software.

Even in China, where civil liberties have long been sacrificed for what the CCP deems the greater good, privacy concerns are bubbling up. On Oct. 28, a professor in eastern China sued Hangzhou Safari Park for "violating consumer privacy law by compulsorily collecting visitors' individual characteristics," after the park announced its intention to adopt facial-recognition entry gates. In Chongqing, a move to install surveillance cameras in 15,000 licensed taxicabs has met a backlash from drivers. "Now I can't cuddle my girlfriend off duty or curse my bosses," one driver grumbles to TIME.

Russia's election meddling around the world highlights the risks of commercially harvested data being repurposed for nefarious goals. It's a message taken to heart in Hong Kong, where millions have protested over the past five months to push for more democracy. These demonstrators have found themselves in the crosshairs after being identified via CCTV cameras or social media. Employees for state airline Cathay Pacific

HONG KONG: CHRIS MCGRATH—GETTY IMAGES; SANDWICH: GETTY IMAGES

have been fired and others investigated based on evidence reportedly gleaned via online posts and private messaging apps.

This has led demonstrators to adopt intricate tactics to evade Big Brother's all-seeing eye. Clad in helmets, face masks and reflective goggles, they prepare for confrontations with the police with military precision. A vanguard clutch umbrellas aloft to shield their activities from prying eyes, before a second wave advances to attack overhead cameras with tape, spray paint and buzz saws. From behind, a covering fire of laser pointers attempts to disrupt the recordings of security officers' body-mounted cameras.

Fending off the cameras is just one response. When Matthew, 22, who used only his first name for his own safety, heads to the front lines, he always leaves his regular cell phone at home and takes a burner. Aside from swapping SIM cards, he rarely reuses handsets multiple times since each has a unique International Mobile Equipment Identity digital serial number that he says police can trace. He also switches among different VPNs—software to mask a user's location—and pays for protest-related purchases with cash or untraceable top-up credit cards. Voice calls are made only as a last resort, he says. "Once I had no choice but to make a call, but I threw away my SIM immediately afterward."

The Hong Kong government denies its smart cameras and lampposts use facial-recognition technology. But "it really comes down to whether you trust institutions," says privacy expert Tsui. For Matthew, the risks are real and stark: "We are fighting to stop Hong Kong becoming another Xinjiang."

Ultimately, even protesters' forensic safeguards may not be enough as technology advances. In his Beijing headquarters, Huang Yongzhen, CEO of AI firm Watrix, shows off his latest gait-recognition software, which can identify people from 50 meters away by analyzing thousands of metrics about their walk—even with faces covered or backs to the camera. It's already been rolled out by security services across China, he says, though he's ambivalent about privacy concerns. "From our perspective, we just provide the technology," he says. "As for how it's used, like all high tech, it may be a double-edged sword."

Little wonder a backlash against AI-powered surveillance is gathering pace. In the U.S., legislation was introduced in Congress in July that would prohibit the use of facial recognition in public housing. Japanese scientists have produced special glasses designed to fool the technology. Public campaigns have railed against commercial uses—from Ticketmaster using facial recognition for concert tickets to JetBlue for boarding passes. In May, Democratic Congresswoman Alexandria Ocasio-Cortez linked the technology to "a global rise in authoritarianism and fascism."

Back in Chongqing, shopkeeper Li Hongmei sees only the positives. She says the public CCTV cameras right outside her convenience store didn't stop a spate of thefts, so she had six cameras installed inside the shop. Within days, she says, she nabbed the serial thief who'd been pilfering milk from her shelves. "Chinese people don't care about privacy. We want security," she says. "It's still not enough cameras. We need more." ◻

FAST-FOOD FRENZY

Customers could not get enough of the Popeyes chicken sandwich

For two weeks this summer, the entire country seemed to have the same craving. This was particularly impressive considering it was for a food that most of us had not tried yet. Made with just four ingredients (brioche bun, fried chicken, pickles and mayo), the Popeyes chicken sandwich was more than just a menu item; it was a phenomenon.

Many have credited the company's social-media savvy, particularly its brush-off of a challenge from rival Chick-fil-A, with propelling the sandwich to fast-food fame. But a viral tweet can go only so far. What kept it going was a perfect combination of comfort, quality and scarcity, with a side of distraction. Not only is fried chicken an American staple, the sandwich contained quite a bit of it. And to top it off, it was actually very good.

That what should have been fairly accessible, given both the price ($3.99) and the number of Popeyes locations across the country, was not only heightened its appeal. In a society where everything is on demand, Popeyes forced us to wait, first in lines, then for the sandwich's return months later. (Franchises restocked in November.) And although it was frustrating to encounter a "sold out" sign, there was also something sort of exciting about the hunt. It's really no wonder that "Have you tried it?" became a national conversation. It was certainly more pleasant than the usual one.

—Raisa Bruner

A fire near the Jacundá National Forest in Brazil's Amazon in August

CLIMATE OF FEAR

As the destabilization of our planet becomes clear, many are experiencing eco-anxiety **By Ciara Nugent**

UNDER THE BRIGHT WHITE LIGHTS OF A LONDON EXHIBITION SPACE, an instructor asks those who identify as extremely anxious about climate change to go to the far side of the room. Those who don't should stay closer to her. Soon, she is mostly alone; 30 ft. away, a few dozen strangers cram together, signaling that they suffer "eco-anxiety."

This workshop, hosted by King's College London, is one of several events organized in the British capital this fall to help people work through the feelings that arise when confronting the fact that, according to the U.N., we now have less than 11 years to prevent catastrophic climate change. "I try not to be hard on myself, because I know I'm doing as much as I can," says Leyla Kaya, a 29-year-old IT consultant. She is vegan, avoids flying and has reduced her nonrecyclable waste to less than a liter a month, but she's worried by how little governments and others are doing. "It's really scary," she says. "It does get me down."

The American Psychological Association first defined eco-anxiety in 2017 as "a chronic fear of environmental doom." In 2019, as protests, heat waves and natural disasters pushed climate up the news agenda, eco-anxiety has exploded across the Western world—even as developing countries suffer most from climate change. Mental-health studies reveal a surge in people reporting stress or depression about the climate. Interest in the Good Grief Network, a U.S. organization coordinating eco-anxiety support groups, has grown in the past six months, with new branches popping up in half a dozen states.

Eco-anxiety is not the same as a clinical anxiety disorder, though physicians say fears about the climate can worsen or trigger pre-existing mental-health problems. In fact, in most cases anxiety is actually a healthy response to the climate crisis, says psychotherapist Caroline Hickman, a member of the Climate Psychology Alliance, a U.K. working group for psychology professionals.

For those in wealthy northern-hemisphere countries, eco-anxiety does not stem from an existential threat, but from uncertainty over the future, says Aimee Lewis-Reau, who in 2016 co-founded Good Grief and began developing a 10-step program in the mold of AA. "In the past, we've had the belief that if we just follow certain rules, things will be predictable and safe. The climate predicament is challenging that," Lewis-Reau says.

Hickman agrees that loss of control can be intolerable. To cope, "we project into the future, sometimes into apocalyptic thinking." That's why some British children think they will die in a few years as a result of climate change and parents worry about societal collapse within a couple of decades—a time frame most scientists say is unlikely in Western Europe.

Experts say taking action can restore a sense of agency. But before hitting the streets, "you need to talk about your feelings," Hickman says, stressing that we need to accept our vulnerability. "It doesn't have to be a therapy group, but I wouldn't advise doing it all alone. Because this is pretty scary stuff." ◻

AMAZON: SEBASTIÁN LISTE—NOOR FOR TIME; PORTER: SANTIAGO FELIPE—GETTY IMAGES; REEVES: EMMA MCINTYRE—GETTY IMAGES

RECLAIMING THE WEST

With the Yeehaw Agenda, black artists are correcting the record

By Andrew R. Chow

THE COWBOY HAS LONG BEEN one of America's most potent symbols. Strivers have taken inspiration from rugged frontier warriors who embodied American individualism, creativity and the quest for manifest destiny.

For the most part, these icons have been confined to the narrow image of the white man, despite the fact that during the golden age of westward expansion, 1 in 4 cowboys was black. But in 2019, this uniformity was challenged by a new generation of black artists in a movement that has come to be known as the Yeehaw Agenda. As expressed in fashion, film and pop music, the Yeehaw Agenda reflects a moment of transition in which the very idea of American identity is being contested.

Coined by Twitter user Bri Malandro, the Yeehaw Agenda achieved critical mass, thanks to a viral TikTok challenge in which people in cowboy getups danced to a little-known song called "Old Town Road." The artist, Lil Nas X, mixed country and trap musical elements with a Western camp flair, and it became the longest-running *Billboard* No. 1 song ever. Other breakout stars Megan Thee Stallion and Lizzo wore flamboyant Western outfits in their videos, and trap-country artist Blanco Brown sparked his own viral dance craze, "The Git Up." Even Solange, a more established artist, broadcast rodeo images in a companion film to her album.

Black cowboys flooded the runway, with LaQuan Smith, Pyer Moss and Telfar Clemens leading the charge, and Billy Porter wore an asymmetrical cowboy hat to accept the first Emmy awarded to an out gay man for best actor in a drama series. In Melina Matsoukas' feature directorial debut, *Queen & Slim,* about two black outlaws, a pivotal scene revolves around Slim riding a horse for the first time. "Nothing scares a white man more than a black man on a horse," Queen tells him.

Antwaun Sargent, an author and critic who helped spread images of the Yeehaw Agenda on Twitter, says it's no surprise that these creators are turning to the cowboy. "We're in a moment where black cultural producers are being given the opportunity—or taking the opportunity—to reinsert narratives that have been swept under the rug or have not been considered central to our respective industries," he says. "The Yeehaw Agenda has shown that we have the opportunity to correct narratives in this country." ◻

Porter before the Emmys, on Sept. 22

ALL HAIL THE KEANUSSANCE

The "Internet's boyfriend" reminds us to be present in the real world

We live in an era of both peak self-salesmanship and peak self-protection. Why be a real person, with glorious flaws and eccentricities, when it's easier to curate a persona on Instagram? Why risk an encounter with a fellow human when you can just shove a pair of white sticks in your ears? But Keanu Reeves, a living entreaty to keep all of our receptors open, shows us another path. In movies like this year's *John Wick: Chapter 3—Parabellum,* as well as *Toy Story 4,* in which he provides the voice of charmingly insecure daredevil Duke Caboom, there's thought behind everything he does: movement is acting, speaking is acting, listening is acting, just being is acting. But images of Reeves out in the world—being a regular person, maybe holding the hand of someone who's dear to him—tell us even more about all the things we may be doing wrong and Reeves may be doing right. On the *Toy Story 4* red carpet, in June, an interviewer asked how he felt about having been dubbed "the Internet's boyfriend." Unsurprisingly, this was the first he'd heard of it. "That's wacky!" he said, smiling quietly, accepting the compliment graciously but also acknowledging its illusory nature. Memes are ephemeral, but we live in our own skin for a lifetime.

—Stephanie Zacharek

Protesters outside an Equinox in West Hollywood, Calif., on Aug. 9

VALUES ADDED

In the era of "woke capitalism," apolitical is not an option

By Alana Semuels

FOR DECADES, MOST COMPANIES WENT TO GREAT lengths to avoid opining on social issues. No longer.

After a mass shooting at a Walmart in El Paso, Texas, in August, the retailer said it would stop selling ammunition for military-style assault rifles. Patagonia closed its offices and stores for part of the day on Sept. 20 so employees could participate in a global climate strike. And in November, Chick-fil-A, which has come under fire for supporting Christian organizations that oppose same-sex marriage, said it would stop donating to those groups.

What's changed? Frustrated with political gridlock, consumers have turned to business for leadership. "I think business has to pick up the mantle when governments fail you," Patagonia CEO Rose Marcario told TIME earlier this year. Young consumers are also more likely to patronize brands whose business models claim to include social change. Nine in 10 members of Generation Z, who account for as much as $150 billion in spending power globally, believe that companies have a responsibility to social and environmental issues, according to McKinsey. In an age when companies have detailed information on customers' ages, incomes and political persuasions, they're calculating that these socially aware consumers are more lucrative than those who might be put off by social-justice campaigns.

"In a politically polarized world that is saturated in social media, you're not going to escape politics," says Jerry Davis, a professor of management and sociology at the University of Michigan. "This is a sea change—in the past, companies kept their heads down and did their best to never be seen."

Companies are also trying to make their politics more appealing to Generation Z as they try to recruit young workers. Last year, after thousands of employees demanded that Google not work with any entity building "warfare technology," Google decided not to renew a contract with the Pentagon. In September, after Amazon employees planned a walkout to call attention to the company's lack of leadership on environmental issues, Jeff Bezos released a climate pledge.

"WOKE CAPITALISM" started picking up steam early last year. After the Parkland school shooting, Delta joined a dozen or so companies in ending discounts for NRA members, even after the state of Georgia threatened to take away nearly $40 million in state tax breaks on fuel the airline received. That September, Nike released an ad featuring Colin Kaepernick telling customers to "believe in something, even if it means sacrificing everything," a show of support for the former NFL quarterback who, after kneeling during the national anthem to draw attention to racial injustice, was not signed to a team. In November, Blake Mycoskie, founder of Toms shoes, announced the largest-ever corporate gift—$5 million—to groups working to end gun violence.

Not every customer, or cohort, has welcomed the shift. In April 2016, for instance, the retailer Target faced a backlash after releasing a statement saying that customers and staff could use the bathroom that corresponded with their gender identity. Christian groups called for a boycott; a pastor said the company was opening the door for "perverts and pedophiles"; and some customers said they would switch to Amazon and Walmart.

Still, companies are learning that it may be riskier to pretend it's all business as usual. After the Washington *Post* reported that Stephen Ross, an investor in Equinox and SoulCycle, was hosting a fundraiser for President Trump, customers urged a boycott. Although SoulCycle said Ross was a "passive investor," attendance at SoulCycle classes decreased significantly in September and October from the same period last year, according to Earnest Research. When the NBA tried to walk back a tweet by Houston Rockets general manager Daryl Morey supporting protesters in Hong Kong, fans in the U.S. mocked the league for valuing the Chinese market more than democracy. The NBA quickly pivoted. At the TIME 100 Health Summit in October, NBA commissioner Adam Silver said he hadn't intended the initial response to read as a condemnation of Morey's words. "Maybe I was trying too hard to be a diplomat," he said. ◻

SOUNDING THE ALARM

Why whistle-blowing is an American tradition—and a bad sign By Tom Mueller

WHISTLE-BLOWING HAS LONG been a vital weapon against public and private wrongdoing in America. Just as FBI whistle-blower Mark Felt called out Richard Nixon's systemic criminality and Karen Silkwood disclosed the massive risks of nuclear power, so today whistle-blowers are explaining how Cambridge Analytica helped to corrupt our elections or how Big Pharma hooked our nation on opioids. In 2019, a whistle-blower revealed startling facts about President Donald Trump's July 25 phone call with Ukrainian President Volodymyr Zelensky, triggering impeachment proceedings.

Whistle-blowing is based on celebrated American ideals, such as the freedom of expression, the right and duty of citizens to warn of public wrongdoing, and the importance of the individual conscience. Pioneering whistle-blower laws were passed by the Continental Congress in 1778, and by Abraham Lincoln in 1863, at the height of the Civil War.

But as important and effective as whistle-blowing has become today, its rise is actually bad news for American society in the long term—a symptom of the breakdown of internal checks and balances on our corporations and our government. This current spate of high-level disclosures by whistle-blowers coincides with the spread of cultures of secrecy, of outsourcing public goods and services to private contractors, of increasing normalization of conflict of interest and other unethical practices as clever business models, and the weakening of the very concept of public service itself. Watchdogs are disappearing, as regulators are captured, defunded or drowned out by lobbying, as local newspapers cut their staffs, and with fewer attorneys at the Department of Justice willing or able to prosecute white collar criminals. Corporate and government insiders realize that if they don't speak out, no one will ever learn of the wrongdoing they see.

WHISTLE-BLOWING'S RISE IS A SYMPTOM OF THE BREAKDOWN OF INTERNAL CHECKS AND BALANCES

We publicly celebrate whistle-blowers in the news and in films as heroes, but in real life we allow most of them to be permanently blackballed in their chosen fields. This two-faced view toward people with the rare courage to speak truth to power suggests why whistle-blowing is so alarmingly easy to politicize. And since the basic currency of whistle-blowing is a respect for facts and the rule of law, the act of whistle-blowing, like democracy itself, is at hazard in today's postfact world.

Mueller is the author of Crisis of Conscience: Whistleblowing in an Age of Fraud

PROTEST: GETTY IMAGES; FLEABAG: AMAZON PRIME

THAT JUMPSUIT

Fleabag gave women the daring look they didn't know they wanted

In the Season 2 premiere of *Fleabag*, creator and star Phoebe Waller-Bridge attends a tumultuous family dinner wearing a sleek black jumpsuit that promptly became the talk of Twitter, selling out in a day once Internet sleuths found its maker. The jumpsuit, a High Street offering retailing for about $50, features wide-leg trousers paired with an open back, a high-neck collar leading to a deep keyhole in the front. "It's sassy and yet exposing," *Fleabag* costume designer Ray Holman tells TIME. "The jumpsuit is very easy to wear, but I think you have to be very confident and streetwise to pull it off." The effect is daring and alluring, but it's also decisively aloof—much like Fleabag herself, a quintessentially millennial character, whose confidence and wit often distract from her aching vulnerability and personal trauma. Fleabag's cheeky candor and unapologetic penchant for selfish, self-destructive coping mechanisms made Waller-Bridge's character the most relatable—and beloved—antihero of the year, which might explain why her viewers bought the jumpsuit en masse. It's 2019, and women are still explaining that we're complicated and multidimensional. The *Fleabag* jumpsuit, like so many of us, is a study in contradictions.

—Cady Lang

CHOOSING JUST

Groups like SisterSong have fought for decades for an expansive vision of reproductive health care. Now they're getting more attention

By Abigail Abrams

THE HOTEL BALLROOM IS PACKED WHEN THE SPOKEN-WORD POET Staceyann Chin takes the stage on a Saturday morning in late October. At least 1,100 mostly women and nonbinary people of color have filled the vast space in the Hyatt Regency in Atlanta in anticipation of her performance and of Stacey Abrams' keynote address, which will come next.

Chin's first poem is a polemic against President Donald Trump, which elicits yells of support along with sharp laughs and applause. But the second performance, called "Tsunami Rising," is when the audience explodes. In a monologue describing how black women have been brutalized, beaten down and discarded since before the founding of America, Chin expresses both the rage she feels at being ignored and the adoration she has for her fellow women of color. "If you are itching to light a f-cking bonfire in the house of the white patriarchy, come stand with black women," she says.

Many in the room are on now on their feet, tears streaming down their cheeks. When Abrams, who lost the Georgia gubernatorial race in 2018 but has since launched voting-rights and census-participation campaigns, steps up to the podium, she urges attendees to turn their pain into action.

PHOTOGRAPH BY MICHELLE BRUZZESE FOR TIME

SisterSong's Danielle Rodriguez, Monica Simpson and Christian Adams in Orlando on Nov. 16

ICE

"My campaign began with the notion that you could center communities of color and you could speak to the marginalized and the disadvantaged," she says. "More importantly, you could hand them the microphone." By the end of her talk, the room is on its feet again. Everyone must help ensure that "justice becomes a verb in the United States," she says.

This mix of fury and joy, celebration and action, defines the weekend at SisterSong's biennial Let's Talk About Sex conference, which despite its name is about much more than sex. It's a training institute, healing retreat, information-sharing opportunity and 2020 strategy session for people working to advance the cause of reproductive justice. "My campaign was a love song to SisterSong," Abrams says in her speech.

Reproductive justice, unlike the more mainstream phrasing *reproductive rights,* goes beyond contraception, abortion access and the idea of being "pro-choice." According to the SisterSong Women of Color Reproductive Justice Collective, it's "the human right to maintain personal bodily autonomy, have children, not have children, and parent the children we have in safe and sustainable communities." The framework demands consideration of all the ways reproductive health can be affected by other factors, from race, religion or sexual orientation to financial, immigration or disability status to environmental conditions. "It's about liberation," says SisterSong executive director Monica Simpson, "and it's about dismantling systems of oppression that make our lives hard in this country but also that make it impossible for us to have the access and the choices that we want to have."

While women's-health groups like Planned Parenthood and NARAL attract the most national attention, today's political climate, the country's changing demographics and a growing recognition of the importance of women of color to progressive politics have combined to put new focus on the work and ideology of reproductive justice. In recent years, groups committed to this work have added chapters and attracted new volunteers and donors. And in June, SisterSong became the named plaintiff in a lawsuit challenging Georgia's new law prohibiting abortion once cardiac activity from a fetal pole is detectable—sometimes known as a "heartbeat" ban. It was the first time the group has gotten involved in such a high-profile lawsuit, and it catapulted SisterSong into the spotlight.

IN JUNE, SISTERSONG BECAME THE NAMED PLAINTIFF IN A LAWSUIT CHALLENGING GEORGIA'S NEW ABORTION LAW

As Democrats increasingly see women and people of color as key to their 2020 strategy, the leaders of the reproductive-justice movement believe they can provide a model for how to mobilize people across the country. "This is a moment for a reckoning," says Kimberly Inez McGuire, the executive director of URGE: Unite for Reproductive and Gender Equity, which focuses on mobilizing young reproductive-justice advocates. "It's not enough for our progressive comrades to sit on the sidelines anymore."

THE REPRODUCTIVE-JUSTICE MOVEMENT came into its own in June 1994, when a group of mostly white women gathered at a conference in Chicago to hear about the Clinton Administration's proposal for health care reform, which de-emphasized reproductive health care in an attempt to head off Republican criticism. The few black women present were concerned. There was little focus on health services like pre- and postnatal care, fibroid screenings or STI tests, and seemingly no understanding of how black women's "choices" around parenthood and reproductive care were often constrained by things like income, housing and the criminal-justice system. So 12 black women leaders gathered in a hotel room to discuss how to address these disparities.

The group called themselves the Women of African Descent for Reproductive Justice and bought full-page ads in the Washington *Post* and *Roll Call* that featured over 800 signatures calling for any health care reform package to include the concerns of black women. Three years later, 16 organizations including black, Asian-American, Latina and indigenous women got together to create SisterSong, a collective devoted to the reproductive and sexual health of women and gender-nonconforming people of color, based in Atlanta.

Over the years, SisterSong and other reproductive-justice groups have remained separate from more mainstream reproductive-rights groups. While they support each other's work, reproductive-justice leaders have sometimes felt that the bigger organizations wanted to collaborate only when it was convenient. "We have the language, we have the connections, and we know how to talk to our people," Simpson says. "For a long time it was very transactional." But in 2014, there was a shift. After a New York *Times* story about reproductive-rights groups expanding their "pro-choice" message did not mention the efforts of reproductive-justice advocates, Simpson, joined by other movement

Simpson speaks about the lawsuit challenging Georgia's abortion law, on June 28

leaders, wrote an open letter to Planned Parenthood. "This is not only disheartening but, intentionally or not, continues the co-optation and erasure of the tremendously hard work done by Indigenous women and women of color (WOC) for decades," Simpson wrote. This forced the two movements to sit down and discuss how they could better work together.

SisterSong now provides training on the history and ideology of reproductive justice to local Planned Parenthood affiliates, and Planned Parenthood clinics provide medical care and services that SisterSong does not. There's a need for both, Simpson says. "Organizations don't have to be everything to everybody," she adds.

Nia Martin-Robinson, director of black leadership and engagement at Planned Parenthood, says the 2014 letter was a learning opportunity. The organization has since deepened its commitment to "making sure that we're giving credit, space, visibility and power to the folks who have been leading this work around the reproductive-justice movement," she says. Planned Parenthood was a top sponsor at SisterSong's conference this year. But the relationship could always be stronger. "We're still on that journey," Simpson says.

THE SISTERSONG CONFERENCE offered a range of workshops on a variety of hot-button progressive topics, including environmental justice, immigration and Palestinian solidarity, as well as training for medical providers, nonprofit leaders, lawyers and researchers, and how-to sessions on everything from campus organizing to the entrepreneurship of stripping. At one session, attendees discussed strategies for incorporating disability advocacy into their work. Another workshop concluded with participants chanting, "I am worthy of pleasure!"

On the second night, attendees let loose at a dance party that lasted well past its scheduled three hours. "There's not a lot of places that the organizers in our community can show up to just be recharged," says Danielle Rodriguez, SisterSong's national conference coordinator. This feeling of solidarity was crucial for attendees like Bridgette Agbozo, a 22-year-old from North Carolina whose family came to the U.S. from Ghana. "As a young person who grew up in the U.S. South and coming from an immigrant background, these are not conversations I grew up having," she says after leaving a workshop where she sought advice on how to square her love for activism with thoughts of going to law school. "It's really reaffirming to be around people who get it."

The increased influence of the movement was apparent at the conference. After the 2016 race, in which 94% of black women voted for Hillary Clinton, many nonprofits realized that they needed to speak more directly to women of color, who are instrumental to efforts to expand the base. SIECUS, formerly known as the Sexuality Information and Education Council of the U.S., has historically not been part of the reproductive-justice movement, but it recently rebranded with a new mission of using sex education to push social change. "When you center these voices of those who are most at risk," executive director Christine Soyong Harley says, "you actually come up with the best solutions for our society." URGE went from hosting chapters solely on college campuses to also building "city activist networks" in recognition of the fact that not all young people who want to organize attend college. National Latina Institute for Reproductive Health has seen a swell in grassroots involvement and other groups wanting to help their cause. And National Asian Pacific American Women's Forum is investing in get-out-the-vote efforts, after seeing people turned away when trying to vote in Georgia in 2018, says executive director Sung Yeon Choimorrow.

Reproductive-justice leaders are quick to note that people of color have struggled to access care for much longer than Trump has been in office. But since the election, the flood of new policies affecting immigrants, LGBTQ people, women and those relying on programs such as Medicaid and Title X funding has created a new pressure. This year alone, states have passed 25 laws that would ban some or most abortions, according to the Guttmacher Institute, a research group that supports reproductive rights, and the uninsured rate increased for the first time in nearly a decade.

When SisterSong sued Georgia over its ban on abortions as early as six weeks—before many women know they are pregnant—it was a big moment for the group and the movement. "A lot of abortion lawsuits erase women of color," says Sean J. Young, legal director of ACLU of Georgia, which is serving as counsel on the case, along with the Center for Reproductive Rights and Planned Parenthood. (Feminist

OREOLUWA ADEGBOYEGA—SISTERSONG

Women's Health Center, Planned Parenthood and other Georgia medical providers and their patients are also plaintiffs.)

Many abortion lawsuits focus on doctors and patients. But in this case, the legal team is arguing that the law will also hurt SisterSong and the advocacy organizations and pregnant people it represents. "When the government bans abortion, it forces such organizations to divert their limited resources to combat the ban," Young says.

Shortly after Kenyetta Chinwe joined SisterSong in January to start its Amplify project, which aims to build relationships with faith leaders, Georgia's legislature took up its abortion bill. So rather than focusing on outreach to religious communities, she spent weeks at the state capitol with the group's state director lobbying against the bill.

The staff also travels to provide training to other social-justice groups, to nonprofits and, increasingly, to service providers and even medical schools on how to incorporate the values of reproductive justice into their work. SisterSong now has 65 organizational members and nearly 500 individual members in its coalition. But with just seven full-time staffers and a budget that allowed for spending $1.7 million in 2017 (compared with, say, Planned Parenthood's $318 million for the fiscal year ending in June 2017), the group is stretched thin.

People outside the movement have quietly adopted some of the priorities of the reproductive-justice community. In 2016, the Democratic National Committee added language advocating the repeal of the Hyde Amendment, which bans the use of federal funding for most abortions, to its platform for the first time, something reproductive-justice groups had pushed for years. Kamala Harris has been using the phrase *reproductive justice* since at least 2017. Elizabeth Warren features a reproductive-justice section on the women's-health policy page of her website. And Julián Castro has mentioned the term in multiple presidential debates. His campaign manager, Maya Rupert, spent most of her career as an activist and is familiar with this work, but says the ideas come from the candidate, who listened to women of color and wanted to incorporate reproductive-justice values into his policies. "It is a testament to the unbelievable organizing and activism work that black women have been putting in for years and years and years," Rupert says of seeing more candidates talking about reproductive justice.

SOME PHILANTHROPIC FOUNDATIONS have reallocated their budgets to give more grants to reproductive-justice groups and help them build organizing capacity. The Ford Foundation, for example, has doubled some reproductive-justice groups' funding to $1 million each year. And Groundswell Fund, which supports more reproductive-justice groups than any other foundation in the U.S., not only increased its own funding to such groups after the 2016 election, giving $2.9 million from its core fund last year, but also ramped up its work with other foundations to increase investments in reproductive justice. "Philanthropy has a hard time funding women of color," says its founder and executive director Vanessa Daniel. "Things are moving in a good direction but at a glacial pace."

For those gathered at the conference, there's a tough fight ahead. Movement advocates fear the Supreme Court's conservative majority could overturn *Roe v. Wade* or render another decision that would make abortion inaccessible in states with Republican legislatures. Choimorrow says she is glad to see the broader culture recognize the importance of reproductive justice, but wants to push some national organizations to do more work before the 2020 election. "I think the winning strategy is actually to expand your messaging," she says. Women of color are already doing this, she adds. "Maybe it's time for you to really get out of the way so that women of color can lead."

PEOPLE OUTSIDE THE MOVEMENT HAVE QUIETLY ADOPTED SOME OF THE PRIORITIES OF THE REPRODUCTIVE-JUSTICE COMMUNITY

Which is perhaps the point. At one of the most popular panels at the conference, four executive directors of progressive organizations, all people of color, spoke about the challenges of championing the concerns of their communities in historically white-led environments. The next day, attendees erupted in cheers when Georgia state representative "Able" Mable Thomas, one of the "founding mothers" of the reproductive-justice movement, announced she is running for the U.S. Senate.

These are moments that make Simpson optimistic. "Folks are ready to fight back, and they want to fight back with a movement that understands them," she says. "We are creating our own stages, we're creating our own tables, we are grabbing our own microphones to talk about these issues, to move our work forward. Folks are going to have to catch up." ◻

Miami players take in a 59-10 loss to Baltimore on Sept. 8

PLAYING TO LOSE

More teams are turning to tanking in hopes of future success **By Sean Gregory**

WE LIVE IN ODD ATHLETIC TIMES. LOSING HAS never been this fashionable. Look no further than the 2019 Miami Dolphins, who, as the season was about to kick off, traded two starters for a haul of future draft picks. The Dolphins decided, in modern parlance, to "tank," or sacrifice the present for the potential of a brighter future. The Fins suffered 59-10 and 43-0 shellackings in their first two games. Then they traded another starter.

Tanking is now an acceptable form of sports behavior, creating stark inequality in the standings. For only the second time ever, for example, four baseball teams lost more than 100 games in a single season. Not coincidentally, four teams won 100 games for the first time in history. The Cleveland Browns gutted their roster to finish 1-31 in 2016 and 2017. The Philadelphia 76ers won 19% of their games from the 2014 through 2016 seasons. "Trust the Process!" Sixers fans would chant, with some trademark Broad Street bitterness. Now, hoops pundits wait for the latest NBA bottom-feeders to emerge. Scouts for the dysfunctional New York Knicks and the injury-riddled Golden State Warriors will surely begin to rack up frequent-flier miles, as they scour the country for the top college prospects they'll likely select in the 2020 draft.

A few success stories have given tanking its newfound cachet. The Houston Astros lost more than 100 games for three straight seasons earlier in the decade: the Astros won the 2017 World Series and reached the seventh game this year before falling to the Washington Nationals. Cleveland selected quarterback Baker Mayfield with the top pick of the 2018 draft: Mayfield set a record for touchdown passes by a rookie. The 76ers have morphed from a punch line into a playoff contender.

BUT THE WISDOM of tanking withers under scrutiny. Houston whiffed on a couple of draft picks and added star players along the way. (The Astros are also now under investigation for reportedly using a camera to decipher the opposition's pitch signs during their championship season.) The main flaw with tanking in football: even if you are able to draft a future star or two, those players are unlikely to have the same impact on a team's success as, say, a LeBron James can have on a basketball court. Even the best football players spend about half the game on the sidelines. Plus, those rebuilding Browns, who finally seemed poised for success, started off the season 2-6. On Nov. 14, Cleveland defensive end Myles Garrett, the team's top overall draft pick in 2017, struck the Pittsburgh Steelers' quarterback on the head with a helmet. He's facing an indefinite suspension.

Even in basketball, the sport where a superstar prospect can propel you to a championship parade, tanking is a suspect strategy. A 2016 study in the *Journal of Sports Economics* concluded that draft position, or the number of picks, does not predict an organization's success. Strong talent evaluators, however, are key. "The pickers," write the authors, "matter more than the picks."

A FEW SUCCESS STORIES HAVE GIVEN TANKING ITS NEWFOUND CACHET. BUT THE WISDOM OF TANKING WITHERS UNDER SCRUTINY

Finally, not even the tanking always goes as planned. This year's Dolphins, again, are telling. Despite a front office that set them up to lose—the team's league-low cash payroll of $141 million is more than $24 million less than that of the team with the second lowest, the Los Angeles Chargers—Miami's players rallied to win two games in November. Are the Dolphins tanking on tanking? It's all a bit confounding. Plenty of winners never failed to the top. How about just playing ball? ◻

GETTY IMAGES

AGAINST GDP

We need to rethink economic growth to save the world By David Pilling

THIS YEAR, NEW ZEALAND BECAME THE FIRST NATION TO formally drop gross domestic product (GDP) as its main measure of economic success. The government of Prime Minister Jacinda Ardern said the budget would aim not at maximizing GDP but instead at maximizing well-being.

Apart from schools, hospitals and roads, whose budgets would be allocated in the normal way, resources would be distributed according to their impact on five government priorities: mental health, child well-being, the inequalities of indigenous people, building a nation adapted to the digital age and fashioning a low-emission economy.

Since the Industrial Revolution, the whole world has been locked into the idea that one has to grow—either to catch up or to stay ahead or simply to keep in motion the mechanisms of capitalism that depend on endless expansion.

Even those people who accept that climate change is an existential threat find themselves pulled in contradictory directions. On one level, they strive to be richer, to earn more disposable income to spend on the goods and services they have learned will make them happier. On the other, they subscribe to the goal of cutting carbon emissions nearly in half by 2030.

IS THERE A WAY of squaring this circle? If by *getting richer,* we mean that our economies must grow as conventionally measured—by perpetually increasing GDP—then the answer is almost certainly not. Few believe that technology can advance quickly enough to allow the world's rising population to consume at current levels, let alone at higher ones, while simultaneously reducing emissions, which we have to do.

When we talk about growth, we are really talking about GDP. Since the 1930s that is how we have measured the output of our national economies. GDP came into being in the manufacturing age, and more than anything it is a measure of physical production. It is poor at counting more ethereal things like services, from insurance and train journeys to music streaming and restaurant food, where value is more related to quality than quantity. This is quite a flaw in advanced economies like the U.S.'s, in which services make up roughly 80% of economic activity. Turning the planet's resources—whether renewable or not—into things we can consume is pretty much our definition of progress.

But there lies a glimmer of hope. If we recalibrate how we measure growth, we may be able to get richer without ruining our planet in the process. If digital services and renewable energy can be delivered without putting extra strain on the planet, then we could continue to grow each year without provoking planetary crisis. Imagine if other things that are currently excluded, but which many of us value, entered our calculations of economic progress: leisure time, unpaid volunteer work, clean air, low crime, longer and healthier lives.

If our definition of what constitutes growth is broadened, one can begin to imagine a less destructive form of economic expansion. What we measure is, to some extent, what we get.

WELFARE CHECK

Global economic activity is growing, but when GDP is adjusted using a genuine progress indicator, or GPI, it's clear that inequality, pollution and other factors are taking a toll on our well-being

SOURCE: IDA KUBISZEWSKI, THE AUSTRALIAN NATIONAL UNIVERSITY, 2013

Pilling is the Africa editor of the Financial Times *and author of* The Growth Delusion: Wealth, Poverty, and the Well-being of Nations

THE 100 BEST INVENTIONS OF 2019

Every year, TIME highlights inventions that are making the world better, smarter and even a bit more fun. To assemble our latest list, we solicited nominations and evaluated them on key factors, including originality, effectiveness, ambition and influence. This is the result.

TIONS

To read more about TIME's Best Inventions, go to **time.com/bestinventions2019**

PHOTOGRAPHS BY JOE LINGEMAN FOR TIME

SOCIAL GOOD

WATER, OUT OF THIN AIR

Watergen GENNY

Whether you're in a developing country or on the scene of a natural disaster, water is usually the No. 1 need in times of crisis. Watergen, an Israeli company, thinks GENNY could be the answer. The machine, which looks like an office water cooler, pulls moisture from ambient air to create drinkable water through a patented filtration process, much like a fancier dehumidifier. One GENNY unit can produce up to 7 gal. of water a day, and all it needs is electricity or solar power—no plumbing required. The multistage purification process can make clean water even in areas with high air pollution, and larger units are already being used in disaster-relief efforts. But GENNY isn't only for those in need. For an estimated $1,500 (units will be priced by distributors), consumers can cut down on buying bottled water and reduce their water use at home.

—Isaac Saul

GeoOrbital calls its foam-filled tires "flat-proof"; no pressure checks required
The removable battery features a USB outlet for charging other devices
GeoOrbital

TRANSPORTATION

HACKING THE E-BIKE

GeoOrbital

Electric bicycles are great for quickly zipping around town without breaking a sweat. But they can also be expensive—some models cost several thousand dollars. With GeoOrbital's electric bicycle wheel, cyclists can upgrade their pedal-powered bicycle into an e-bike in minutes for a fraction of the cost: $1,495. Riders control the electric motor, and their speed, with a throttle connected to their handlebars. A three-hour battery charge gives riders a range of up to 20 miles, depending on the model, the bicycle and how much pedaling the rider does. Founder and CEO Michael Burtov says the design, inspired by the sci-fi Light Cycles in the movie *Tron,* takes advantage of what he considers formerly wasted space. "Regular wheels have a lot of empty, wasted space in them, and now they don't," he says. GeoOrbital has sold about 3,000 wheels so far and raised $2.8 million on crowdfunding sites.

—Alex Fitzpatrick

STYLE

21ST CENTURY FASHION

Bee & Kin tech handbags

Designer Tracey Hummel decided that, no matter how stylish, purses should do more than just hold your stuff. "I want to create beautiful bags that do a little bit of work for you," Hummel says. Her luxury handbag line of sleek, smart purses (which start at $495) comes equipped with a set of interior LED lights that discreetly illuminate their interiors, and a Bluetooth-enabled button that can be programmed via an app to perform tasks like calling an Uber; sharing your location with a friend; or starting a playlist with a simple click, double click or hold. Future editions might include even more life-smoothing features. "Anything that feels like an added convenience to have in your bag, that's what we're looking to integrate," says Hummel. *—Megan McCluskey*

ARTIFICIAL INTELLIGENCE

REDUCING FALSE DIAGNOSES

Qlarity Imaging QuantX

Diagnosing breast cancer can be a worrisomely old-school process. For all of the 21st century tech that can image tumors, the ultimate diagnosis still rests with the radiologist's eyes and judgment. With 30 million breast-cancer screenings in the U.S. each year, that can lead to a lot of false negatives and positives. QuantX backstops radiologists with AI-enabled software that analyzes MRIs to confirm or challenge their diagnosis. The system was approved by the FDA in 2017 when a clinical study showed a 39% reduction in missed cancers and a 20% improvement in overall accuracy. QuantX is currently being tried out at the University of Chicago and the University of Texas MD Anderson Cancer Center, with a bigger rollout planned in the coming months.

—Jeffrey Kluger

BEAUTY

MAKEUP THAT PROTECTS

Supergoop! Shimmershade eye shadow

The skin around the eyes is the thinnest on your face, which is why it's more susceptible to visible aging and skin cancer—studies have shown that up to 10% of skin cancers are found around the eyelids. But despite the heightened risks, Supergoop! founder Holly Thaggard discovered that many people avoid putting on sunscreen near their eyes for fear of irritation. This led her and her team to create Shimmershade, the first and only eye shadow to be clinically tested to provide broad-spectrum SPF 30 protection. "I thought, if we're going to do this, let's do it in a fun and playful way and re-create an eye shadow with UVA and UVB protection," she says. The product has fielded some skepticism that users will apply an eye shadow thick enough to make the sun protection effective, and dermatologists still recommend using sunscreen wherever skin is exposed. But the product takes the vital step of encouraging users to think more holistically about sun protection. And the fact that the creamy, mineral-based formula won't crease and lasts for hours doesn't hurt either. —*Cady Lang*

SOCIAL GOOD

PORTABLE POWER

We Care Solar Suitcase

Laura Stachel, a U.S. obstetrician-gynecologist, was observing a complicated baby delivery in Nigeria when the power went out. Electricity cuts are common in the country, which also has one of the world's highest maternal-mortality rates. So Stachel asked her husband, a solar-power expert, to build an easy-to-use, suitcase-size solution that could run lights for a delivery room along with a fetal heart monitor for her next trip. When she returned to the Nigerian hospital with the first Solar Suitcase, the midwives begged to keep it. Now, Stachel's NGO has shipped nearly 4,000 units to 27 developing countries, putting an end to deliveries in darkness.

—*Aryn Baker*

WELLNESS

CLOSING THE PLEASURE GAP

Osé by Lora DiCarlo

A third of women infrequently, if ever, orgasm during sex. It's a major inequity, one that Osé founder Lora Haddock was trying to solve when she came up against another: sexism in tech. Osé, a first-of-its-kind hands-free vibrator that uses microrobotics and biomimicry, raised over $3.2 million and was initially honored at the 2019 Consumer Electronics Show—until the award was rescinded for not being in line with the show's "image." After public outcry, Osé got its prize back and Haddock has become a leader for equality in tech. —*Emily Price*

GAMING

GAMING FOR POSTERITY

Analogue Mega Sg

Analogue's Mega Sg is a new console for old games. Aimed at collectors and, critically, historians, the system plays Sega's early catalog—more than 2,000 games from three different systems—and is compatible with modern televisions. "[Video-game history is] worth exploring, celebrating and experiencing in the same light as film and music," says Analogue founder Christopher Taber.

—*Matthew Gault*

PREVIOUS SPREAD: GEOORBITAL: JOE LINGEMAN FOR TIME; THIS SPREAD: SHIMMERSHADE: JOE LINGEMAN FOR TIME

STYLE

A PERFECT FIT

denim unspun

Finding great-fitting jeans can seem like an impossible task. But what if there were a way to guarantee you'd end up with the perfect pair without ever trying them on? That's the goal of denim unspun, an apparel startup that uses a 3-D body scanner to generate virtual customer avatars made up of 100,000 data points to produce custom-fit jeans. After being scanned, customers select the fabric, thread color and style they want. The best part: no sizes. "Customers are happy because they don't have to think about their measurements," denim unspun co-founder Beth Esponnette says. "It's not about size anymore, it's just you." The process, which is now offered at stores in San Francisco and Hong Kong, also works to eliminate unsold inventory and fabric waste for a sustainable fashion model that doesn't skimp on quality or style. A pair of the personalized jeans starts at $200. —*Megan McCluskey*

CONSUMER ELECTRONICS

BREATHING EASIER

Airthings Wave Plus

Most people have a carbon-monoxide detector in their home but nothing to warn of elevated levels of radon, the leading cause of lung cancer for nonsmokers in the U.S. The Airthings Wave Plus is the first app-supported radon and indoor air-quality detector. "We spend 90% of our time indoors, yet indoor air quality constantly takes a back seat to outdoor pollution in the discussion about how air impacts our health," says Airthings CEO Oyvind Birkenes. In addition to radon, the battery-powered Wave Plus detects CO_2 levels along with total volatile organic compounds (TVOCs) and gases emitted from chemicals in the home, giving you a comprehensive view of your home's air quality and any potential dangers it may present. —*Patrick Lucas Austin*

EDUCATION

CREATE YOUR OWN COMPUTER

Kano Windows 10 PC

Kano made a name for itself with a DIY computer kit that utilized a custom OS to teach kids (and, let's be honest, parents) how computers work. Now, Kano PC moves that conversation forward by helping users put together the hardware aspects of a PC while simultaneously teaching them all about the bits and bytes that make a computer run. In the end, the user has "the power, the security, the safety … of Windows 10 in S Mode," says Chris Mann, Kano's senior communications manager, meaning the computer can only be used for limited tasks. Although the kit is designed for education, it could also be a great first computer for a young teen. —*Jason Cipriani*

EDUCATION

AN AI-POWERED EDUCATOR

Roybi Robot

This robot may look like a cute alien, but don't let the design fool you—it's an artificial-intelligence-powered tool designed to help kids ages 3 through 7 learn language and STEM skills. Using machine learning, Roybi Robot gradually tailors its lessons and responses to a child's unique learning style, even recognizing the child's emotions and incorporating content he or she most enjoys. Kids can hear a story, sing a song or learn a lesson. Kayla Prochnow, a content specialist at Roybi, says the robot gives children personalized education in early childhood, a crucial time when they're soaking up language like a sponge. The company hopes the robot—which costs $189 on Indiegogo—will give kids a strong foundation for success. —*Madeleine Carlisle*

CONSUMER ELECTRONICS

THE WORLD'S MOST ADVANCED MATTRESS

Eight Sleep Pod

If you take sleep seriously, you can't do much better than this smart mattress. Using thin water channels, it dynamically regulates its temperature throughout the night based on your presets and biometric feedback, which its inventors say can help you consistently sleep better. An array of sensors track sleep phases, heart rate, respiratory rate and more for up to two people, delivering a "sleep fitness score" via a companion app. "There's a bunch of trackers that can tell you how bad you slept last night," says CEO and co-founder Matteo Franceschetti. Pod, he says, takes that data and uses it to actually improve your sleep. Even at $2,135 for a queen, the Pod sold out in just 15 days when it launched in February. —*Alejandro de la Garza*

FOOD & DRINK

A NEW BREAKFAST BAR

Soylent Squared

When the makers of Soylent, the cult "complete meal in every bottle" nutritional drink, discovered that most people consumed their original 400-calorie product in the morning for breakfast, they decided to create a quicker, breakfast-bar version: Soylent Squared. At just 100 calories, the bar gives people more flexibility in choosing how much they want to consume, says Andrew Thomas, Soylent's vice president of brand marketing. Rather than drinking another 400-calorie Soylent drink if they're still hungry, people can eat one or two Soylent Squared bars as a snack. And with 5 g of protein per bar, three or four make a satisfying meal. The bars are also sustainable. "We use ingredients that not only make the bar good for you but good for the planet," Thomas says. The bars, which come in three flavors, have been on the market since April and cost $1 each. —*Jasmine Aguilera*

Each Soylent Squared bar contains only 3 g of beet sugar

THIS SPREAD: FARMER'S FRIDGE: JOE LINGEMAN FOR TIME; SOYLENT SQUARED: KIM BUBELLO FOR TIME
NEXT SPREAD: ORU KAYAK INLET, ELVIE BREAST PUMP: JOE LINGEMAN FOR TIME

FOOD & DRINK

VENDING VEGGIES

Farmer's Fridge

There's a panic that sometimes creeps in around lunchtime, when hunger meets indecision and, suddenly, the only thing immediately available is unhealthy fast food. Farmer's Fridge is attempting to solve that problem by putting freshly made, produce-filled meals into vending machines. Gone are the chips and candies you might have bought in a hunger-fueled frenzy; instead, the machines distribute salads, wraps, sandwiches and more—all made from scratch in a kitchen in Chicago and shipped or delivered to the machines daily, Monday through Friday. The average lunch: $7. To address the issue of waste, the company delivers food that's perhaps a bit wilted but still good to eat to community food services for those in need. With more than 400 vending machines throughout the U.S.—including in Chicago, New York City and Philadelphia—Farmer's Fridge is aiming to be near urban offices, gyms and homes soon.

—Mahita Gajanan

Any unsold food that can't be donated is composted by the company

Jars can be recycled or returned to the vending machine for reuse

BEAUTY

FACE WASH OF THE FUTURE

Artis Phantom Cleansing Silks

In recent years, skin-care obsessives have made the case for multistep face washing for a more thorough removal of makeup and grime. But every extra step can mean another product. That's why Artis created its Phantom Cleansing Silks, a facial cleanser that streamlines three steps—oil, foam and exfoliation—into one easy ritual. The cleanser comes in the form of "silks," small sheets made from ingredients like jojoba oil and vitamin E, woven using patented nanofiber technology ($55 for a pack of eight). To use, simply stick the patch to your skin, mist with water, and rub to cleanse and exfoliate. The benefits go beyond effective and efficient skin care; since the product doesn't activate until it touches water, there's no need for excess preservatives to stabilize the ingredients, as there would be in a conventional cleansing gel, cream or foam.

—Cady Lang

FOOD & DRINK

AN OVEN THAT MULTI-TASKS

KitchenAid Smart Oven+

Inspired by the versatility of a KitchenAid stand mixer—which can take on different attachments that allow it to make all sorts of foods—the Smart Oven is here to make more than your average sheet-pan dinner. The oven offers a power outlet for attachments that allow home cooks to make pizzas on a quick-heating baking stone; steam entire dinners for a family of four; or grill the perfect cut of meat without stepping outside. Like many "smart" household items, the tech-enabled oven also allows users to monitor their meals and remotely control the attachments through a smartphone app or virtual assistant. A touchscreen on the oven even provides instructions for a variety of recipes. Double and single versions of the oven launched in the spring of 2019, starting at $3,199, and a combination oven (which includes a microwave) will be released in 2020.

—Mahita Gajanan

PARENTING

A MORE SUBTLE BREAST PUMP

Elvie breast pump

Two years ago, a portable, wearable breast pump appeared on TIME's Best Inventions list as an alternative to heavy, noisy pumping machines. Since then, more have come to market, including Elvie, which has emerged as a leader in the field. Elvie has no tubes or wires, and uses a nearly silent motor. It is lighter, slimmer and quieter than competitors, allowing moms to discreetly pump while performing daily activities. A set costs $499, or moms can opt for one pump for $279. *—Emily Barone*

SUSTAINABILITY

GREENER FLIGHT

Eviation Alice

Flying is dirty work—the aviation industry emits nearly a quarter of total transportation-related greenhouse-gas emissions in the U.S., according to the EPA. One way to clean it up could be Eviation's all-electric Alice, an Israeli-made nine-seater meant to convince the gas-guzzling aviation world that electric power is ready for takeoff. "The real innovation is in the lightweight materials rather than the batteries and motors and controllers and all that," says Eviation CEO Omer Bar-Yohay. If successful, the design could pave the way for larger electric commercial aircraft. Alice, which has a range of 650 miles and should be quieter than gas-powered aircraft, begins flight testing in 2020. *—Alex Fitzpatrick*

OUTDOORS

A KAYAK TO GO

Oru Kayak Inlet

Kayaks are fun, but they're also hard to travel with and store—unless you're using Oru's foldable Inlet. "It came out of my own personal need," says chief design officer and founder Anton Willis, who had to put his full-size kayak in storage while living in a studio apartment in San Francisco and couldn't easily get out for a paddle on the bay. The original model's folding design was inspired by a *New Yorker* article he read about origami and pulled in nearly half a million dollars in funding on Kickstarter in 2012. A 2014 appearance on *Shark Tank*—and investment from Robert Herjavec—helped the company expand into a worldwide business. Since then, Oru has created a handful of models for differing uses: one for lighter, beginner use; another for comfort with longer paddles; a more advanced model for rough ocean waters; and one for two-person paddling. The new 10-ft., $899 Inlet is the smallest, lightest and least expensive option yet and is best for general recreational use on calm waters. Made of a custom extruded, UV-treated plastic and able to fold into a compact 20-lb. box about the size of a large duffel bag, the Inlet can be unpacked in less than five minutes (with a little practice) and is small enough to check on an airplane. The company also sells a custom duffel for toting and storing the boat, and even the paddles break down into smaller pieces that can easily fit into a closet, under a bed or up on a shelf in the garage. *—Emily Price*

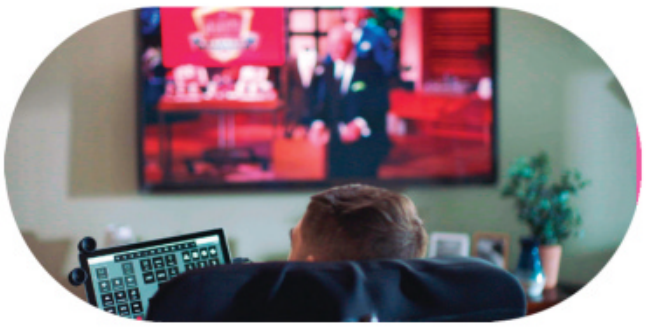
ORU KAYAK
ORU
KAYAK
The Inlet can go from box to boat in less than five minutes
The paddles break down into four pieces and weigh less than 3 lb.

SUSTAINABILITY

KEEPING FOOD FRESH

Apeel

Few things are more frustrating than when an unripe avocado turns to mush before you can blink an eye. Some 40% of produce currently goes to waste, often because it goes bad before we can eat it. To cut that waste, Apeel Sciences developed an edible, plant-derived coating for fresh fruits and vegetables that helps them last longer by slowing the ripening process. The company claims the artificial peel can double or even triple the shelf life of a fruit or vegetable. Apeel introduced its treated avocados to more than 1,000 Kroger locations across the U.S. in September and hopes to expand to other stores and other produce, like limes and asparagus. Soon, consumers may be able to buy things like bananas without worrying they'll go brown in the shopping bag. *—M.G.*



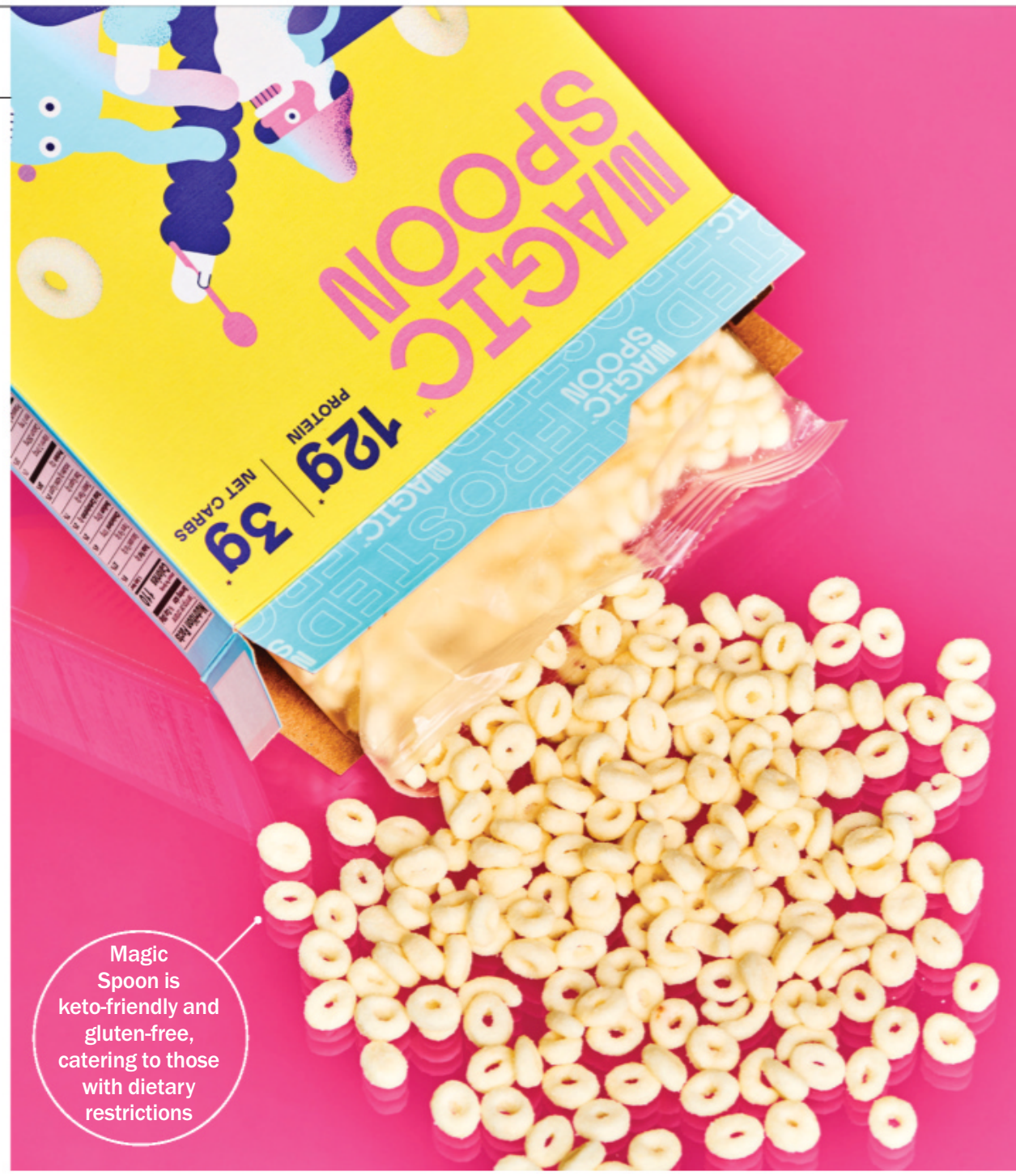
ACCESSIBILITY

ENTERTAINMENT BY SIGHT

Comcast Xfinity X1 Eye Control

This web-based remote control for computers, tablets and TVs is designed to help those with physical disabilities, by letting users control devices with their eyes. Using their own eye-gaze software or other assistive technology, users log in to Xfinity's free site and can surf, search and record just by looking at different buttons on the web page. For many, it will be the first time they've had the power to change the channel.

—Josiah Bates


MAGIC SPOON
12g PROTEIN
3g NET CARBS
Magic Spoon is keto-friendly and gluten-free, catering to those with dietary restrictions

SUSTAINABILITY

HARNESSING WIND, MORE EFFICIENTLY

GE Haliade-X 12 MW offshore wind turbine

As temperatures rise, political pressure has grown to move the world toward clean energy. GE's Haliade-X offshore wind turbine, the first of which was raised this year, offers one piece of the puzzle. Each blade of the world's largest offshore wind turbine stretches more than the length of a football field, and its height tops that of the Washington Monument. This is a significant advance: when it comes to offshore wind turbines, bigger often means better. With digital controls and other upgrades, it's the most efficient in the industry, churning even when the wind is not strong enough to drive other turbines. Soon, GE expects it to enter service in the Northeast U.S. as well as across Europe, China and Japan. *—Justin Worland*

TRANSPORTATION

CLEANING UP PICKUPS

XLP Plug-in Hybrid Electric System

While it's easier than ever to find a hybrid sedan, a hybrid work truck is far more challenging. Automakers just aren't building them yet. With XL's new hybrid program, technicians convert hardworking pickup trucks like the Ford F150 and F250 into plug-in hybrids, adding an electric motor and battery that boost the trucks' existing power train during acceleration. Without voiding the warranty, the conversion improves trucks' gas mileage by as much as 25% to 50% while reducing CO_2 output by 20% to 33%, XL claims. The next step, says XL's Eric Foellmer, is a fully electric conversion. "We're getting fleets used to the fact that you can plug in your work truck, and it's going to perform for you," he says.

—Alex Fitzpatrick

HEALTH CARE

RELIEVING SINUS PAIN

Tivic Health ClearUP

Nearly 30 million people suffer from sinus pain, without satisfactory treatments. FDA-approved ClearUP emits a microcurrent of electricity from its penlike tip, which users glide around the eye for about five minutes a day to calm nerves connected to the sinuses that can be aggravated by allergies and infections. ClearUP costs $149. *—Alice Park*

THIS SPREAD: MAGIC SPOON: JOE LINGEMAN FOR TIME. NEXT SPREAD: BRAINROBOTICS PROSTHETIC HAND: JOE LINGEMAN FOR TIME; HELM PERSONAL SERVER: KIM BUBELLO FOR TIME

FOOD & DRINK

PROTEIN-PACKED CEREAL

Magic Spoon

After selling Exo, a company that makes protein bars out of powdered crickets, Gabi Lewis and Greg Sewitz embarked on their next venture: sweet cereal for diet-conscious grownups. And this one is not made out of bugs. In April, the pair launched Magic Spoon—a cereal that's high in protein, gluten- and grain-free, and low in sugar and carbs—to stand up against brands of cereal that are marketed as healthy options. "What we're doing is completely flipping the nutritional profile of cereal on its head," Lewis says. "It's basically turning a protein shake or protein bar into the taste and texture and shape as cereal." Magic Spoon costs $10 a box, and its four flavors are currently sold only via the company's website. But that hasn't stopped consumers; the company sold out of its many months' supply within a few weeks of launching, Lewis says, and has already received $6.5 million in seed funding. *—Jasmine Aguilera*

CONSUMER ELECTRONICS

BETTER BIKE NAVIGATION

SmartHalo 2

Riding a bike around town while looking at a smartphone for directions is downright dangerous. The SmartHalo 2 translates directions from your smartphone into colorful LED lights on your handlebars that point to the next turn. Cyclists can choose turn-by-turn navigation or a "compass" setting that points them in the right direction, but lets them pick the best route from A to B. It also has an antitheft alarm and syncs with popular fitness apps. *—A.F.*

PARENTING

HANDS-FREE PARENTING

MiniMeis child carrier

When kids get tired from walking, they often end up on their parents' shoulders. "The downside is you have to hold them and your hands get occupied," says Julius Winger, a father of three who invented MiniMeis, a lightweight, foldable and ergonomic shoulder carrier that is comfortable for both parents and kids. The MiniMeis comprises a seat with a backrest and a system of straps to attach the child securely to the parent. Unlike front or back carriers, it distributes the child's weight squarely over a parent's center of balance and kids as old as 5 can ride with an unobstructed view. At $149, it's similar in cost to other carriers, and parents are jumping at the opportunity to free up their hands; in three years, the company has grown from 7,000 sales a year to 15,000 a month online and in Europe, and the carrier is expected to hit U.S. stores this winter. *—Emily Barone*

SUSTAINABILITY

RECYCLING POLLUTION

Graviky Labs AIR-INK

Air pollution isn't something most people like to keep around. It kills around 7 million people annually, according to the World Health Organization. But MIT spin-off Graviky Labs is stockpiling soot emitted by diesel-burning engines to recycle into black ink. "Pollution is bad, but pollution happens to be a really good raw material to make inks," says Graviky co-founder Anirudh Sharma. Most of the black ink we use in pens and printer cartridges comes from burning fossil fuels. To reduce that, and cut existing pollution, Sharma and his team came up with a technology called KAALINK that harnesses one of the world's most health-damaging particulates, known as PM 2.5. The carbon from that pollution is then transformed into a certified-safe AIR-INK pigment that can be used in pens, textiles, packaging and artwork. For now, AIR-INK is commercially available only in marker form. But in the coming months, Graviky plans to launch an online platform for customized printing. *—Laignee Barron*

PRODUCTIVITY

PROTECTING YOUR DATA

Helm personal server

Our personal information, stored by corporations like Google and Yahoo, seems more vulnerable than ever to hacks and leaks. One way to help keep it private is by storing it yourself using an email attached to a custom domain name; Helm CEO Giri Sreenivas calls email the "core of your online identity" through which you access nearly "every account that you have online." For $499, the Helm Personal Server is a service and device that gives you private email and stores it securely, along with files, contacts and calendars. Its first two manufacturing runs have already sold out. —*Tara Law*

SOCIAL GOOD

CONSCIOUS HYGIENE

Saathi pads

In parts of India, huge numbers of women don't have access to sanitary napkins. When the founders of Saathi pads decided to try to tackle the problem, they wanted to do it in an eco-friendly way. So they created pads made from banana fibers that they say are 100% biodegradable. This also helps the local community: Saathi buys its materials from farmers who might otherwise throw the banana fibers away, and employs underprivileged women to produce the pads. The company recently launched a new product made from bamboo fibers. The innovative products provide "a hygienic, effective alternative to improve the lives of women without creating any negative environmental impact," says Kristin Kagetsu, one of the company's cofounders. She estimates that more than 6,000 women now use Saathi pads. —*Amy Gunia*

Each finger functions freely, which allows for easy replacement or repair
Sensors in the wrist read the user's arm-muscle signals for more motion control

The index finger can be used on its own when the others are in rest mode

EXPERIMENTAL

A MORE LIFELIKE PROSTHETIC

BrainRobotics AI prosthetic hand

The BrainRobotics prosthetic hand is a first in its field: an intuitive AI-powered hand that allows the user to make unlimited gestures and grips. Unlike other prosthetic hands that came before it, this one employs an algorithm that allows the hand and user to learn from each other and becomes more lifelike with each use. The device also uses eight multichannel electromyography sensors in the wrist, which enable the hand to process muscle signals from the user's arm, allowing more accurate control over grips and hand motions. Although the product is still in the testing phase, one beta tester was able to play a piano duet with great success. "We hope our invention can give amputees the ability to proudly control prosthetics just like they are using their real hands," says Max Newlon, the president of parent company BrainCo. When available, the hand will cost $10,000 to $15,000—relatively affordable, considering similar devices can cost significantly more. *—Josiah Bates*

SOCIAL GOOD

VITAMINS FOR ALL

Sanku Dosifier

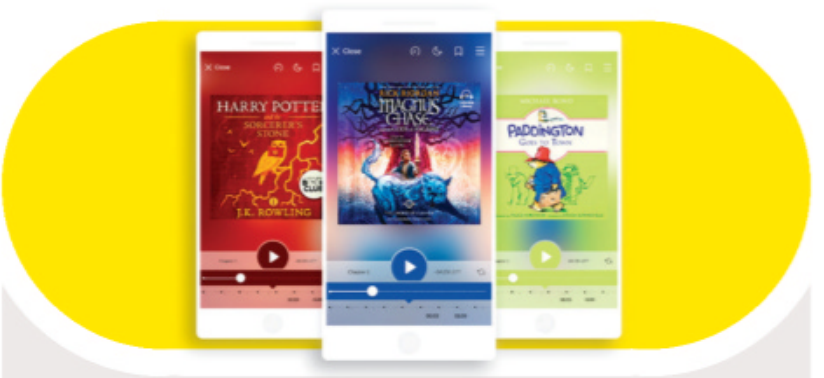
An estimated 243 million people in Africa are undernourished, largely because of a starchy diet lacking vitamins and minerals. Local millers have not been able to fortify their flours with iron, B12, zinc and folic acid, as industrial millers do, until now. The Sanku Dosifier enables any miller to "dose" flour with the precise ratio of nutrients to ensure a healthy diet. Sanku has outfitted 300 flour mills in East Africa and plans to reach 15,000 more by 2025, helping 100 million people. *—Aryn Baker*

HEALTH CARE

AN EASY-ACCESS DOCTOR

TytoHome

Getting to the doctor's office isn't always easy, but the creators of the $299 TytoHome hope to eliminate that trip altogether. Its handheld device measures vitals; examines lungs, ears, skin and throats with special adapters; and videoconferences with a doctor to monitor the metrics in real time. "It transforms primary care by putting health in the hands of consumers," says CEO Dedi Gilad. *—Hillary Leung*



EDUCATION

TRACKABLE READING

Sora From Rakuten OverDrive

The company behind one of TIME's Best Apps of 2018 has a new e-reading app for children. Sora lets kids check out e-books and audiobooks in multiple languages as they would at a library, make notes as they read, and share those notes with their teacher or classmates. Teachers can also track the time students spend reading. The app is free for students and is being used by 23,000 schools and districts globally.

—Jasmine Aguilera

Future generations of the shoe will vary in color and design as they're recycled
The shoes are made out of a single material and contain no glue or solvent

EXPERIMENTAL

FULLY RECYCLABLE SNEAKERS

Adidas FUTURECRAFT.LOOP

Upon first glance, these sneakers, while notably stylish, look no different from any other high-end running shoes. The innovation comes once you're done with them. Instead of throwing the sneakers away, you can return them to Adidas so 100% of each shoe can be reused to create future generations of FUTURECRAFT .LOOP shoes. It took more than seven years of research, including developing new technology to build the shoes out of a single material with no glue or solvent. James Carnes, vice president of global brand strategy at Adidas, says the FUTURECRAFT .LOOP is meant to be a first step to "clean up some of the environmental impact that we create through our massive product creation every year." But you'll have to wait to get your hands on them; they're still in the beta-testing phase, and the tentative schedule for public consumption isn't until 2021. —*Madeleine Carlisle*

SOCIAL GOOD

INTERNET, ACCESSIBLE

KaiOS

About half the people in the world don't have access to the Internet, which puts them at a disadvantage in business, education and other areas. KaiOS is working to bridge the digital divide with a lightweight mobile operating system that brings wi-fi, GPS, apps and other advanced features to affordable, nontouch phones. With KaiOS-powered devices, users can access hundreds of apps—like WhatsApp, Facebook and Google Maps—through the company's online store. Launched in mid-2017, the operating system is now in use on over 100 million devices in Southeast Asia, Africa, Latin America and Europe. Devices with KaiOS start at about $17—an investment that Sebastien Codeville, the company's CEO, says has the potential to make a real impact. "First-time access to vital digital services and resources has changed lives," he says. *—Amy Gunia*

ADIDAS: JOE LINGEMAN FOR TIME

WELLNESS

BOXING SOLO

FightCamp

FightCamp aims to eliminate the friction of a typical boxing class—including the commute to the gym—by combining smart gloves, a standing bag and video-based instruction. Sensors under the gloves track the volume, speed and intensity of punches, and a leaderboard lets you see how your output stacks up against that of users across the U.S. The whole set costs $1,219, plus a $39 monthly subscription for access to hundreds of guided workouts.

—Sean Gregory

Users have thrown more than 110 million punches this year

TRANSPORTATION

A SOLAR-POWER FIRST

Lightyear One

Electric cars are all the rage. But there is the problem of batteries running low far from a charging station. Dutch automotive startup Lightyear has a potential solution in the Lightyear One, a futuristic-looking electric sedan adorned with solar panels that recharge the car. Solar generates only about 7.5 miles of range every hour, but with an impressive 450 miles of single-charge range to begin with, owners won't be relying on sunshine alone to get around. *—Alex Fitzpatrick*

SUSTAINABILITY

REPURPOSING PLASTIC

PureCycle

Just 9% of all plastic—which almost never fully degrades—has ever been recycled. Because of odors, colors and contaminants, much of what we put in our bins is not reusable. Hoping to remedy this, PureCycle Technologies is using a new method to restore used polypropylene into resin that's effectively as good as new. This purification process churns out colorless pellets hygienic enough for even food-grade applications, PureCycle says. And it uses only a fraction of the energy involved in making virgin resin. "We're actually taking plastic that wouldn't ever be recycled again and making it indefinitely recyclable," says Mike Otworth, PureCycle's CEO. Production is scheduled to start in 2021, but it's already so popular it's presold for the next 20 years.

—Laignee Barron

Powerful headlights and rear brake lights make late-night commutes safer
Unique electric brakes add drag to the existing classic hand and foot brakes
Extra-wide, air-filled tires absorb shock and improve stability
BOOSTED

TRANSPORTATION

A SERIOUS SCOOTER

Boosted Rev

The proliferation of shared electric scooters is undeniable; Limes, Birds and Spins litter the country, from the suburbs of California to the streets of New York. There's a clear demand for a way to get around that's easier than biking, greener than driving and cheaper than using larger electric vehicles like mopeds. So electric-skateboard maker Boosted decided to make a scooter for the more dedicated eco-commuter. The $1,600 Rev is a beefier, more powerful version of the scooters you'd pay a few bucks to ride to your next location, with a top speed of 24 m.p.h. and a range of 22 miles on a full three-hour charge. The Rev weaves through city terrain and conquers hills with aplomb. That's thanks to its pair of electric motors, wider base for improved stability and air-filled tires for increased shock absorption—but all those features do make it a hefty 45 lb. The integrated odometer lets you see your speed and swap among three driving modes, and the companion app lets you track your miles. Its steel frame makes it bike-lock-friendly, so you won't have to roll it into class or the office, and its three different braking options ensure you've got control when you need it.

—Patrick Lucas Austin

FOOD & DRINK

AGRICULTURE, UPDATED

AeroFarms indoor vertical farming

Millions of people around the globe suffer from food insecurity, and experts say that number could increase as the climate changes. The founders of AeroFarms say its technology, which includes a technique for indoor farming that uses 95% less water than field farming, can help. A key advance to the company's patented technology is a new growing medium: rather than grow in dirt, these crops grow in a reusable cloth made from recycled water bottles. Instead of being doused with water, the crops are hydrated with a gentle mist. AeroFarms has already produced crops like kale and arugula at scale, selling to big grocery chains, restaurant providers and, beginning this year, even an airline. "We're the only commercial grower in the world doing what we're doing," says co-founder Marc Oshima.

—Justin Worland

DESIGN

A MORE SUPPORTIVE SEAT

The Cosm chair

The Cosm chair, by Berlin-based designers at Studio 7.5 for Herman Miller, is the pinnacle of personalization. Among its features are auto-harmonic tilt, which lets the chair instantly adjust to a user's body and posture—no turning a dial or pulling a lever necessary—and intercept suspension, which molds the chair to the body, removing the gap behind a user's back and providing spinal support. The flexible frame and woven seat are designed to make you feel weightless. The chair's leaf arms, which have "Dumbo ears" and are set at an angle that keeps them from getting in the way of a desk, are the first of their kind. The Cosm starts at $895.

—Anna Purna Kambhampaty

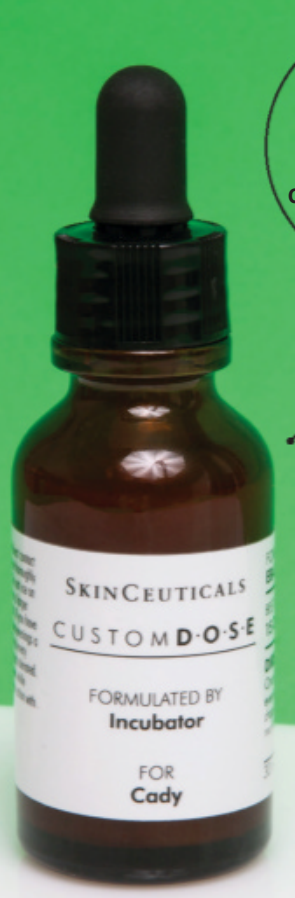
BEAUTY

UNIQUE SKIN CARE

SkinCeuticals Custom D.O.S.E. corrective serum

No one skin-care product works for everyone, but cult brand SkinCeuticals has taken personalized beauty routines to the next level. With Custom D.O.S.E., a personalized clinical-grade serum ($195), the company hopes to make professional customized results more accessible. Users first visit their dermatologist, who identifies their skin concerns—from oily to dry, aging to discolored—before using SkinCeuticals' machine to whip up a formula just for them on the spot. L'Oréal's Technology Incubator combined tech and beauty research to help create the D.O.S.E. system, which uses 2,000 algorithms to process personal data before concocting a unique formula, drawing from eight (and counting) highly concentrated ingredients like retinol, glycolic acid and niacinamide.

—Cady Lang



After a consultation, it takes only 10 minutes to create the custom formula

GAMING

CHARGED-UP PLAY

Logitech G502 Lightspeed wireless mouse

When the team at Logitech G decided to make a wireless version of the beloved G502 wired gaming mouse, used by more than 4 million gamers, they knew they couldn't take any shortcuts. In addition to being wireless, the G502 Lightspeed offers battery life of up to 60 hours, keeps the same 11 programmable buttons as its sibling's and is 7 g lighter. Chris Pate, a portfolio manager at Logitech G, and his team used years of experience, research and technological advances to create a new energy-efficient HERO sensor that enables the speed and responsiveness required for fast-paced gaming. Paired with the PowerPlay Wireless Charging System—a $119.99 mouse pad that charges the mouse while you play—the $149.99 G502 Lightspeed is always ready to go. *—Jason Cipriani*

GAMING

SCREEN TIME, OUTSIDE

Biba Playground Games

With its free mobile app, Biba Playground Games is trying to turn screen time into quality time spent outside. Parents use the app, which blends gaming with playground activities, to relay "missions" that kids can complete in the real world. Since its 2016 launch, Biba has set up augmented-reality tags in almost 5,000 parks. When scanned with a smartphone camera, the tags launch games like a dinosaur-themed adventure in which players cross monkey bars and travel down slides. *—Matthew Gault*

BOOSTED REV: JOE LINGEMAN FOR TIME; SKINCEUTICALS: KIM BUBELLO FOR TIME

SOCIAL GOOD

HELPING RURAL FARMERS CONNECT

Farmerline Mergdata

Alloysius Attah grew up on his aunt's farm in Ghana, so he knows how difficult it can be for small-scale farmers to access the resources they need to succeed. That's why he developed a mobile and web platform just for them. Mergdata sends farmers information about the weather and produce prices via voice message in their language, bridging any literacy gaps. The farmers—who might not otherwise have access to financial services like loans—can also get farm supplies on credit through the platform. Localized farming tips for the season come free when farmers purchase supplies. "We need to get them everything they need to produce and sell more food and make lasting profit for their families," Attah says. More than 200,000 farmers in 13 countries in Africa are currently using Mergdata.

—Amy Gunia

PARENTING

A DOLL FOR EVERYONE

Mattel Creatable World dolls

For half the world's children, playing with a doll is still considered taboo. Mattel aimed to tap that underserved market and overthrow outdated gender norms with the Creatable World doll, which launched in September. The doll can be a boy, a girl, neither or both. It comes in a range of skin tones and hair textures, each with a short haircut that can be fitted with a long wig. (A kit, which includes both hairstyles and several outfits, costs $30 on Mattel's website and at retailers like Target and Amazon.) Its youthful features intentionally betray no gender so that any child—boys who like dolls, girls who don't usually like dolls, gender-fluid kids, trans kids, gender-nonconforming kids—can find a figurine that looks like them. "Kids have more of an emotional connection to dolls than they do to other toys," says Kim Culmone, the head of design at Mattel. "It was important that this particular doll was a blank canvas so kids can really take it wherever they want to." *—Eliana Dockterman*

SPORTS

DIGITAL DUNKS

NEX Team HomeCourt

A challenging pickup basketball game in early 2017 left NEX Team co-founder David Lee wishing for a way to track his performance in real time and share it. A year later, the company released the HomeCourt app; just position an iPhone or iPad camera on a basketball court, and AI recognizes the rim, counts your swishes and lets you compete with players around the world. High-profile backers include Mark Cuban, the NBA and Steve Nash.

—Sean Gregory

FOOD & DRINK

MEAL DELIVERY, MODERNIZED

Postmates Serve

Your next Postmate might not arrive in a car. Meet the delivery service's newest rover, Serve, which has two eyes and four wheels and navigates the sidewalks remotely monitored by a human pilot. The robot, which Postmates says can carry 50 lb. and travel 30 miles on a single charge, will join more than 350,000 people who deliver food for the company. Customers receive their meals by using a touchscreen on the rover. Designed to navigate in urban spaces with more ease and less environmental impact than a larger vehicle, Postmates says Serve reduces delivery costs and traffic while increasing sales for local restaurants. The service has initial plans to roll out in Los Angeles and San Francisco.

—Mahita Gajanan

MATTEL; JOE LINGEMAN FOR TIME

Each doll kit lets kids put together more than 100 different outfits and styles
Unlike Barbie, the more youthful dolls have flat feet and childlike bodies

PRODUCTIVITY

THE FUTURE OF PACKING

Scotch Flex & Seal Shipping Roll

3M believes its Scotch Flex & Seal Shipping Roll could replace shipping tape, boxes and packing peanuts altogether. The roll comes in four sizes of waterproof, cushioned material and—with 3M's proprietary adhesive material—sticks securely only to itself. Simply cut to fit around your item, and seal. By reducing packaging, it cuts waste and shipping costs and could mean fewer delivery trucks on the road.

—Isaac Saul

ACCESSIBILITY

VISION MADE AUDIBLE

OrCam MyEye 2

For those living with visual impairments, the OrCam MyEye 2 could be a game changer. Described as "talking glasses," the artificial-intelligence device attaches to the frame of any glasses and can identify faces and currency or read text and information from bar codes aloud. Fitting all this power into such a small device is like "putting an elephant into a small closet," says Amnon Shashua, inventor of the technology. OrCam MyEye 2 can also be useful for those with reading difficulties like dyslexia.

A newer version, which is scheduled to come out next year, will allow users to get even more specific, like telling the machine to read only the headlines of a newspaper, or only the appetizer section of a menu. The device is available in 48 countries and has even been used in Israeli elections to help blind and visually impaired citizens cast their ballots. *—Sanya Mansoor*

HOME

DIY WALL DECOR

Scribit

It's not a whiteboard. It's not a digital billboard. It's something in between. Equipped with erasable markers, Scribit—a write-and-erase robot—can re-create artwork on walls and other vertical surfaces by drawing, line by line. The creators aim to bring "a touch of analog" into our digital lives, says Scribit co-founder Andrea Baldereschi. Teachers can have Scribit write lessons on classroom walls. Restaurant owners can alert customers to new menu options. And art aficionados can regularly update the illustrations throughout their homes. Scribit currently sells for $499. Users can upload their own designs or use premade drawings from independent artists or access art from Scribit's library. The company says a new feature allows users to convert any picture, even a selfie, into an erasable drawing on the wall. Scribit recently received recognition as one of Kickstarter's most successful campaigns and raised more than $2.4 million in crowdfunding.

—Sanya Mansoor

SPORTS

SAFER SPORTS FOR KIDS

VICIS ZERO1 Youth helmet

Over the past decade, an emerging body of medical research has shown that playing football can increase the risk of brain injury, and youth football participation has declined significantly. But at least 1.2 million kids under the age of 13 still play tackle football, according to the Sports and Fitness Industry Association. So VICIS, the

ACCESSIBILITY

A SMARTER CANE

WeWALK

A few years ago, Kursat Ceylan, who is blind, was trying to find his way to a hotel, using a smartphone map app and a cane while pulling luggage, when he walked into a pole, cutting his forehead. He co-developed the WeWALK—a smart cane that detects objects above chest level and pairs with apps, such as Google Maps—to help the 250 million visually impaired and blind people worldwide navigate a digital world without having to juggle a smartphone. The WeWALK costs $499.

—Tara Law

Seattle-based startup whose football helmets have topped annual safety ratings published by the NFL and NFL Players Association, is turning its attention to the youth market. "Our birthright," says VICIS CEO Dave Marver, "was to come out with a better helmet for kids." The ZERO1 Youth, which launched in May, has thicker force-absorbing support on the front and sides of the helmet, where kids are more likely to incur more jarring hits. Players on 1,500 different youth teams have now worn the helmet. While no helmet can prevent concussions altogether, in Virginia Tech's inaugural youth-helmet rankings, VICIS finished first once again.

—Sean Gregory

ZERO1 YOUTH HELMET: JOE LINGEMAN FOR TIME

HEALTH CARE

ZAPPING MIGRAINES

Nerivio

Worn on the upper arm, Nerivio electrically stimulates the body's own neural pathway for tamping down pain signals. When they feel a migraine aura starting, patients put on the device, which is calibrated to a wavelength that addresses their pain. For now, the $99 device requires a doctor's prescription and is only available at designated pharmacies.

—Alice Park

CONSUMER ELECTRONICS

PRO VIDEO MADE EASY

Remo Tech OBSBOT Tail

If you've ever shot home movies or YouTube videos solo, you know how hard it is to keep yourself in frame. Now the OBSBOT Tail can be your cinematographer. Just set the $589 camera on a table or tripod; select your subject in the companion app; and the OBSBOT Tail will pan, tilt and zoom to follow them as they prowl the stage or dart across the football field, capturing their movements in 4K video. You can also give commands using hand gestures or through the app, where you can further customize your shooting preferences or style.

—Patrick Lucas Austin

SOCIAL GOOD

POWER TO THE PEOPLE

YOLK Solar Cow

The YOLK Solar Cow is helping to improve access to electricity and education in developing nations. Placed near schools, the solar charging system that literally looks like a cow has "power milk"—white, portable batteries—that students can take home to their families. Around 500 kids took charged batteries home during pilot programs in Kenya and Tanzania. YOLK says the product will chip away at broader global inequality issues by providing energy to low-income families and encouraging them to send their children to school. *—Isaac Saul*

DESIGN

A MORE FLEXIBLE SHOWER CADDY

OXO Good Grips Quick-Extend aluminum pole caddy

If you're suffering from a shower-storage shortage, Oxo's new Quick-Extend aluminum pole caddy is a well-reviewed, high-end solution. The pole on the easy-to-install caddy—which is made of rust-proof anodized aluminum—extends from just over 5 ft. to 9 ft., so it can fit in the corner of most showers, small or large. Four adjustable shelves provide storage for everything from soap to oversize bottles of shampoo, and extras like hooks for razors and loofahs ensure that your shower essentials have their own designated places. Assembly is tool-free, and when it's time to move it, the caddy pops out of your shower with the press of a button. At $150, the caddy's unique, customizable fit might be well worth the cost for those with limited shelf space.

—Emily Price

WELLNESS

MONITORING HEALTH

Omron Healthcare HeartGuide

HeartGuide's developers are quick to say it isn't a wearable; it's a blood-pressure monitor that just happens to be worn on the wrist. That design is geared toward the 103 million Americans who have hypertension and struggle to check their readings in a consistent and inconspicuous way. "Those people spend about five hours a year talking with their physician, and about 5,000 hours a year at home, trying to deal with this on their own," says Jeff Ray, executive director of business and technology at manufacturer Omron Healthcare. Integrating a blood-pressure monitor into a sleek watch that also measures sleep and activity, Ray says, makes staying on top of cardiovascular health easy and provides a fuller picture of overall wellness. Customers and doctors clearly think it's worth the $499 price tag: HeartGuide's first run sold out so quickly that Omron doubled its production capabilities to produce around 2,000 devices a month.

—Jamie Ducharme

During the creation of HeartGuide, Omron filed more than 80 new patents

TRANSPORTATION

AN EASIER E-SKATEBOARD

Walnutt SPECTRA X

Smaller, lighter and more portable than e-scooters and e-bikes, electric skateboards are a compelling alternative for quickly getting around town. But they also have a higher learning curve: it's far easier to learn to ride a bike or scooter than go full Tony Hawk. Hong Kong–based mobility startup Walnutt might have the answer in the SPECTRA X, a high-tech electric skateboard with a "3-D posture control system"—an AI algorithm that intelligently adapts to each rider and stabilizes the board, making it easier for first-timers to climb aboard with confidence. *—Alex Fitzpatrick*

EDUCATION

LEARN MUSIC VISUALLY

ROLI LUMI

ROLI has designed products intended for avid and skilled musicians, but with its latest product, LUMI, it is attempting to reach those aspiring to learn how to play. "We hope that LUMI basically closes the gap between people's love of music in general and their fear about playing it themselves," says Will MacNamara, head of communications at ROLI. The LUMI keyboard is small, and it lights up to allow users to learn which keys to play. With an accompanying app, users can learn their favorite songs and work their way up to full music lessons. It has received more than $2 million in Kickstarter funding and will be distributed to funders in November. By 2020, ROLI hopes to roll LUMI out to schools across the U.S. It will be available to the wider public for $250 in January.

—Jasmine Aguilera

PARENTING

KEEPING KIDS CLOSE

B'zT

Several years ago, B'zT founder Kiyeon Nam had what she recalls as a terrifying experience: she briefly lost her then 3-year-old daughter in a mall. The incident spurred Nam to research child-tracking devices and then, finding the options lacking, to create one of her own. B'zT's tracking devices—which won a 2019 Edison Award—are machine-washable and come embedded in kid-friendly T-shirts and patches, which start at $19.99. Parents and teachers can use the company's free app to monitor the locations of kids wearing the devices.

—E.P.

SUSTAINABILITY

REDUCING WASTE

TerraCycle Loop

Loop wants to help make major brands more sustainable. Launched in May by recycling company TerraCycle, the service sells brand-name products—including Clorox wipes, Häagen-Dazs ice cream and Febreze air freshener—in durable, reusable packaging. Products range from $4 to about $60 and require refundable deposits for the containers. When they're finished with the product, customers return the packaging to Loop, where it's cleaned and refilled, and the cycle begins again. More than 80,000 people in the U.S. and France have signed up, with expansion to more countries planned soon.

—Mahita Gajanan

CONSUMER ELECTRONICS

A PHONE, PLAIN AND SIMPLE

The Light Phone II

For those who think time spent staring at screens is doing more harm than good, the $350 Light Phone II provides a smartphone stripped down to its essentials. The iPhone 4 look-alike can only call, text and set an alarm—no camera, email or social media, though features like a calculator and music playback are in development. "It's been incredible to hear user feedback that people are feeling more calm and content ... because they weren't scrolling through their smartphones," says co-founder Joe Hollier. *—Patrick Lucas Austin*

HEALTH CARE

ULTRASOUND TO GO

Butterfly iQ

Medical imaging is cumbersome and expensive. But Butterfly iQ has shrunk ultrasound technology to the size of a chip, letting medical professionals simply plug the portable probe into their phone; peer at a patient's heart, lung or growing fetus; and even diagnose diseases. At $1,999, plus a $35 monthly software subscription, the FDA-approved device is now used in more than 20 countries—many where imaging is lacking.

—Mandy Oaklander

THIS SPREAD: HEARTGUIDE, B'ZT: JOE LINGEMAN FOR TIME; LIGHT PHONE II: KIM BUBELLO FOR TIME. NEXT SPREAD: GILLETTELABS HEATED RAZOR: JOE LINGEMAN FOR TIME

AR & VR

BUILDING NEW WORLDS

Minecraft Earth

Like *Pokémon Go* before it, *Minecraft Earth* is an augmented reality game that sends players out into the real world to gather resources and interact with each other. Unlike *Pokémon Go, Minecraft Earth* lets players leave permanent digital structures they've built on the platform for others to enjoy. Using only a smartphone, fans of the popular game can create whole worlds that hum alongside our own. An early-access version of *Minecraft Earth* launched in the U.S. in November.

—Matthew Gault

HEALTH CARE

STOPPING FOOD POISONING

PathSpot

To help stop the spread of food-borne illness, biomedical engineer Christine Schindler created PathSpot, which uses a light-based detection algorithm to scan hands for harmful contamination. Restaurant employees hold their hands beneath the scanner, which assesses whether they must be rescrubbed to eliminate pathogens like *E. coli.* Some Chopt and Pokeworks restaurants are among the 100 locations that have started using the product since it launched in May. *—Jamie Ducharme*

BEAUTY

A CLOSER SHAVE

GilletteLabs Heated Razor

The hot towels wrapped around your face during a classic straight-razor shave at a barbershop aren't just a relaxing ritual—they're a way to ensure the closest, most comfortable shave by softening facial hair and skin. Now, with GilletteLab's Heated Razor, the luxurious warmth of a hot shave is possible with every shave at home. The rechargeable razor, which costs $200, features a stainless steel warming bar that sits beneath five blades to warm your face as you shave. Once the heat is turned on, users can switch between two different levels of heat that is evenly distributed throughout the shave thanks to four heat sensors, while Gillette's FlexDisc technology ensures that every facial contour and crevice is covered. With a fully waterproof design, the razor can also be used in the sink or shower.

—Cady Lang

The Heated Razor was first launched on Indiegogo—where it sold out in six days

The razors can be set to a warm 110°F or a steamier 120°F

TRANSPORTATION

AN EXTRA-POWERFUL ELECTRIC BICYCLE

VanMoof Electrified S2

It's hard to give up the convenience of driving for more eco-friendly transport, but the high-tech S2 electric bicycle is designed to convert the wary. "If we really want to convince people who take their cars, we need to give them an alternative that is worth considering," says VanMoof chief of product design and technology Job Stehmann. The S2 has pulled ahead of its field, with a top speed of 20 m.p.h. and a range of 37 miles on a full charge (via wall plug). An LED display is built right into the frame, showing riders their speed and more. An antitheft system employs a high-pitched alarm and locking mechanism, which can be unlocked via smartphone app. And a turbo button sits ready to provide an extra boost of power to get up a hill or escape a tricky situation. —*Alex Fitzpatrick*

WELLNESS

SAFETY ON THE RUN

Nathan Sports' SaferRun Ripcord Siren Personal Alarm

If you sometimes feel nervous while running by yourself outdoors, you're not alone. The SaferRun Ripcord Siren Personal Alarm, coming to market in February 2020, was built to help you exercise with a greater sense of security. When you pull a tab, the thumb-size alarm emits a 125 db sound—as loud as an ambulance siren. Created by a female-led design team, the device is lightweight, easily fits in a small pocket and costs $19.99. —*Madeleine Carlisle*

ACCESSIBILITY

A SMARTER HEARING AID

Starkey Livio AI

Many people who could benefit from a hearing aid avoid it, fearing it signals infirmity. Starkey Hearing Technologies answers that fear with a device that does more than amplify sound and tone down background noise. Livio AI is embedded with sensors and artificial intelligence that allow it to stream music; verbally answer questions like a smart assistant; translate conversations into your language; detect falls (and alert loved ones); measure physical activity; and track how often you talk to other people during the day—useful for elderly users who can become isolated. Since launching in 2018, "it's our best-selling product ever," says Achin Bhowmik, chief technology officer at Starkey, who wears the device even though he doesn't have hearing loss. "It's better than normal hearing." Livio AI is available from hearing professionals. —*Mandy Oaklander*

SUSTAINABILITY

RE-CREATING NATURE

ECOncrete

ECOncrete seeks to make the billions of humans living along the world's coastlines a little less disruptive to marine ecosystems by replacing intrusive concrete infrastructure, from sea walls to seafloor mats, with products that blend in with their surroundings. Instead of building concrete blocks, ECOncrete uses a technique known as biomimicry, relying on the shapes, textures and size of natural systems to dictate how the company builds its products. "Nature does it better than we do," says Adi Neuman, head of design at ECOncrete.

—Justin Worland

FOOD & DRINK

A BETTER PLANT BURGER

The Impossible Burger 2.0

The classic veggie burger got an upgrade with the Impossible Burger 2.0, an alternative to ground beef that even chars and bleeds, despite being made entirely from plant-based proteins. Its makers have capitalized on public desire for a more sustainable burger this year, making headlines for partnering with Burger King and launching their plant-based meat at grocery chains on the East and West Coasts. The company plans to build on its product line by launching other meat alternatives, like faux chicken and fish. For now, though, "Our competition is only the cow," a company spokesperson says. *—Jasmine Aguilera*

TRANSPORTATION

AD DOLLARS FOR UBER DRIVERS

Firefly

Calling an Uber or Lyft at the end of a night out has become a default for many, but drivers for the popular ride-sharing services still often don't see much profit. Firefly is helping to change that by paying drivers an average of $300 per month for placing geo-targeted, rotating digital advertising for brands such as HotelTonight on the roof of their car, like many taxis already do. The service claims to deliver more than 430 million ad impressions per month over its 40,000 sq. mi. of coverage, a noncontiguous expanse that includes New York and Los Angeles. The company, founded in a Stanford business school dorm by Kaan Gunay and Onur Kardesler, says it reserves 10% of its ad space for social causes, local governments and nonprofits. One such campaign, which ran in L.A. and San Francisco, featured Smokey Bear and focused on fire prevention. Firefly is also working toward collecting city data using attachments like air-quality monitors on their units, and is considering international expansion next year.

—Emily Price

BOSE FRAMES: JOE LINGEMAN FOR TIME; OCULUS QUEST: JOE LINGEMAN FOR TIME

Each pair can play up to 3.5 hours of streaming music on a single charge

CONSUMER ELECTRONICS

LISTEN TO YOUR LENSES

Bose Frames

While your average pair of sunglasses focuses on protecting your eyes in style, Bose Frames add something extra to the formula: sound. Each temple holds a tiny audio system designed to be audible only to the wearer. That means no headphones are needed to enjoy music or a podcast on your commute. "Frames provide an open-ear personal listening experience that allows the wearer to enjoy content without closing themselves off to the world around them," the company says. The sunglasses connect to your smartphone via Bluetooth so, if you choose, you can receive audio alerts and notifications from apps.

—Patrick Lucas Austin

PARENTING

A BETTER WAY TO CONNECT WITH KIDS

Caribu

Lots of services provide video calling: Apple's FaceTime, Facebook's WhatsApp, Microsoft's Skype, Google's Hangouts. But none of them caters to young children who can't handle sitting through a long video chat with their relatives. "Kids feel like they are in the Spanish Inquisition," says Maxeme Tuchman, co-founder of Caribu, a Miami-based startup that aims to make video chat a better experience for both kids and adults. Caribu lets both parties share an activity on the screen, so they can see and talk to each other, as well as draw pictures, play games or read more than 1,000 books in eight languages together. The service costs $7 a month but is free for military families.

—Emily Barone

ENTERTAINMENT

TV OF THE FUTURE

LG 88-in. OLED 8K TV

4K televisions have finally gone mainstream, and prices are falling. But another big upgrade is just around the corner: 8K displays, like LG's 88-in. model, are trickling out and promise even better picture quality for the big game or family movie night. LG's display is the first 8K TV with OLED technology, which allows for a higher-contrast picture and a thinner display—the LG TV is a mere 1.96 in. thick. 8K-quality movies don't yet exist, but LG's display will "upscale" existing video until true 8K content becomes available. LG's Tim Alessi says that, unlike other TVs, this model's resolution will even allow for comfortable viewing in tighter spaces. "You can get up super close to it, and you'll still see a solid, clear, well-defined image," he says. *—Alex Fitzpatrick*

SOCIAL GOOD

NO-WAIT MEDS

Pelebox smart lockers

Pelebox founder Neo Hutiri knows what it's like to manage a long-term illness in South Africa. "My biggest challenge was not my [tuberculosis]," he says, "it was spending three hours [waiting in line at the clinic] just to collect my medication." The Pelebox smart locker lets registered patients pick up prescriptions from kiosks around town with a onetime SMS code. So far, the lockers have delivered more than 10,000 prescriptions. Average wait time? Under a minute. *—Aryn Baker*

HEALTH CARE

LEARNING FROM MEDICAL MISTAKES

Surgical Safety Technologies OR Black Box

Being rolled into an operating room is scary enough, but even more so when you consider that of the 300 million surgeries performed worldwide each year, up to 50 million will involve complications and up to 3 million will result in death. Enter the OR Black Box, developed by Toronto-based surgeon Teodor Grantcharov. Just as an airplane's black box records data throughout a flight to keep track of anything that goes wrong and improve overall safety, the OR version records audio, video, patient vital signs, feedback from electronic surgical instruments and more. Hospitals can then analyze the data or use it as a teaching tool. The Black Box has been in operation in Europe since 2017 and will roll out in the U.S. next year. In a surgical theater that still relies on paper checklists, the Black Box is a huge step forward. —*Jeffrey Kluger*

HEALTH CARE

HELPING HOSPITALS

Diligent Robotics Moxi

Between delivering lab samples, removing soiled linen bags and running routine errands, it's hard for nurses to make time for the most important task: interacting with their patients. This is what scientists at Diligent Robotics hoped to address when they built Moxi, a hospital robot. With an arm to reach, a gripper to pick up objects and a mobile base to move, Moxi is able to complete duties end to end independently without being asked, relieving nurses of non-patient-facing tasks that studies show they otherwise spend up to 30% of their shifts on. The company has just wrapped up yearlong trials at four hospitals in Texas and in October began its official market launch with its first full-time hospital partner in Dallas. Diligent Robotics CEO Andrea Thomaz plans to have Moxi in even more U.S. hospitals by the end of 2020. —*Hillary Leung*

Handheld touch controllers accurately translate gestures into game play
Positional audio lets you hear the experience sans headphones

AR & VR

USER-FRIENDLY VR

Oculus Quest

VR has been slow to catch on with the general public; it's expensive, and there's been a need for some tech knowledge and accoutrements to participate. The Quest might be the system that finally brings virtual reality into every home in America. Unlike older high-end VR setups, Oculus' newest device doesn't connect to a PC or require any external wires, and its VR-enabled controllers and built-in motion-tracking cameras allow you to safely move around a room and fully immerse yourself in games or experiential content. To set up the Quest, you just put on the headset, draw a virtual safety boundary in the room you're using and jump into the action. Once inside, the possibilities are nearly limitless. You could find yourself in a boxing ring surrounded by a cheering crowd, pursuing a mission in the world of *Star Wars* or sword slashing to the music in *Beat Saber.* The experiences are so immersive that after taking off the headset, you might be stunned to realize you've been in the same room the whole time. A full set starts at $399—less than other VR headsets at this level. Consumers are clearly on board: the Quest had a sold-out release in May, and in just the first two weeks, Oculus sold more than $5 million of Quest apps and games. *—Alejandro de la Garza*

SUSTAINABILITY

TRACKING WATER POLLUTION

Draper/Sprout Microplastics-Sensing Autonomous Underwater Vehicle

Take a sample from almost any major body of water, and you're likely to find microplastics, or bits of plastic pollution less than 5 mm long. Many experts agree that microplastics are a cause for concern, as they may harm marine life or taint our fish and water supplies. But little is known about them beyond their prevalence—in an August report, the World Health Organization said getting more microplastics data is an "urgent concern." That's where the Microplastics-Sensing Autonomous Underwater Vehicle comes in. Designed jointly by Draper and Sprout working alongside the Environmental Protection Agency, the raylike drone is meant to swim around a body of water, collecting and analyzing samples for their microplastics content. Draper project lead Lou Kratchman says that data can be a jumping-off point for more advanced microplastics research. "We need something that's comparable to the world Air Quality Index," he says. "Kind of a global weather map that, in real time, we can look and see how the microplastics situation is changing." While the drone is still a concept, a simpler prototype is already being successfully used in Hawaii. *—Alex Fitzpatrick*

EXPERIMENTAL

A MORE FLEXIBLE PC

Lenovo ThinkPad X1 Foldable

Half laptop, half tablet, the Lenovo ThinkPad X1 Foldable flips—er, folds—what you know about laptops on its head. With a 13.3-in. 2K OLED display that is touch-sensitive and folds in half, the ThinkPad X1 Foldable can be held flat like a tablet, creased like a book on your commute or held like a traditional laptop when you need to get work done. The touchscreen spans the entire surface, though users can pull up or retract a virtual keyboard for typing, and the ThinkPad X1 Foldable can sit in a stand or dock for use with a physical keyboard and mouse. When folded, the device is the size of a 9-in. folio—more portable than most small laptops. A foldable screen may seem futuristic, but it's designed to be user-friendly while still functioning not like a tablet but like a full PC—Windows operating system and all. The ThinkPad X1 Foldable is set to be on the market in 2020.

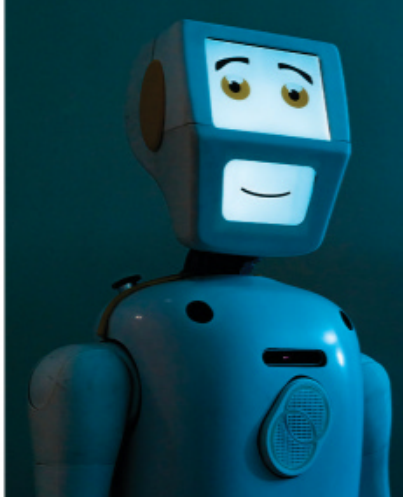
—Madeleine Carlisle

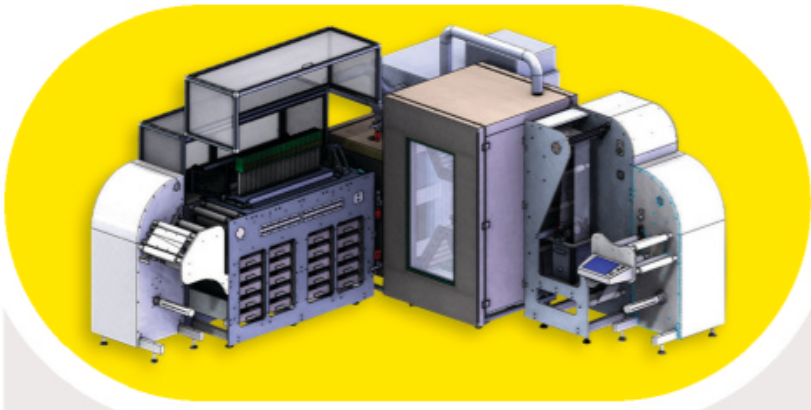
HEALTH CARE

CARING FOR THE ELDERLY

Stevie

People over 65 are the fastest-growing age group in much of the developed world, but the growth of the eldercare workforce isn't keeping pace. The shortfall of paid care workers in the U.S. alone could exceed 150,000 by 2030, a gap that Dublin-based Akara Robotics believes AI can help fill. Akara's signature creation is Stevie, a socially assistive robot designed for care homes. The robot has a friendly face, and can be adapted to play games, make deliveries and facilitate video chats. During initial trials this year in a Washington, D.C., retirement community, researchers found that residents liked Stevie best when it was entertaining them with stories and being social. Those features are important to get right, says Conor McGinn, Stevie's lead engineer, as they are "the things that seem to affect people's quality of life." *—Corinne Purtill*





EXPERIMENTAL

CUTTING-EDGE DATA STORAGE

CATALOG DNA Data Writer

Our digital world is creating new data by the sextillion, and storing it is costly and takes up physical space. CATALOG took inspiration from the human body's efficient system for storing genetic information to create the DNA Data Writer, which prints data on blank, synthetic strands of DNA. The company recently printed and stored 16 gigabytes of the English text version of Wikipedia on DNA in about 12 hours—roughly 1,000 times faster than previously achieved rates. Commercial pilot testing is set for 2020. *—Jason Cipriani*

STYLE

A SLEEK TRAVEL ACCESSORY

Away the Backpack

Away's popular hard-sided suitcase that charges devices became a mainstay of stylish jet-setters and celebrities, and now the company is trying to do the same with the Backpack. Designed based on customer feedback, the sleek, water-resistant nylon backpack—which is available for $195—has three pockets, as well as a number of well-placed nooks and crannies to hold all your stuff and keep it organized. A fourth separate back pocket can hold a 15-in. laptop and an adjustable side pocket can carry a water bottle. When you're ready to catch a flight, a sleeve on the back loops over a rolling suitcase handle for easy traveling.

—Emily Price

HEALTH CARE

AN EASIER EXAM

GE Pristina with Dueta

Many women avoid mammograms because they hate having their breasts pressed as doctors take images that can detect signs of cancer. GE Healthcare's Senographe Pristina with Dueta allows patients to control the compression themselves using a wireless remote. The result: the company's research shows that most women actually apply more pressure than a technician would, improving image quality. *—Jamie Ducharme*

BACKPACK: JOE LINGEMAN FOR TIME; STEVIE: GREG KAHN FOR TIME

AR & VR

VIRTUAL SURGERY

Osso VR

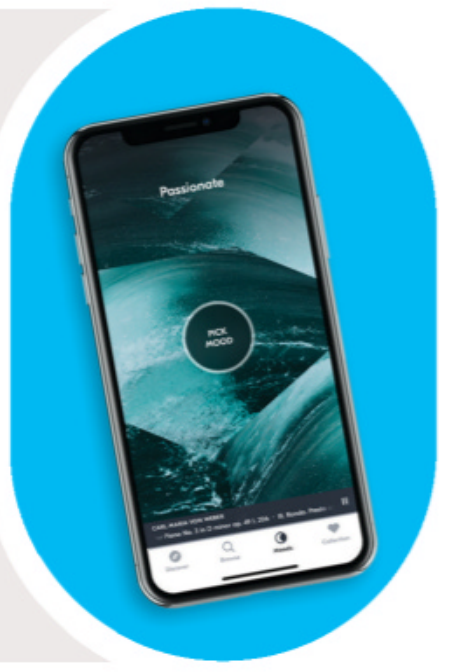
Virtual reality can be extremely useful when it comes to training—for first-time drivers, pilots and even surgeons. The Osso VR software is designed to give doctors a virtual operating-room experience. "Even after four years of college, four years of medical school and five years of residency on average, 30% of graduates still cannot operate on their own," says Dr. Justin Barad, co-founder and CEO of Osso VR. "That's insane." Osso VR is now being used in hospitals around the U.S., and soon surgeons in health centers in underdeveloped countries, such as Tanzania, Cambodia and Ethiopia, will also be able to learn from leading experts from around the world without having to leave their hospitals. *—Alice Park*

ENTERTAINMENT

INSTANT CLASSIC

IDAGIO

While most music-streaming services focus on popular music, IDAGIO's mission is to make classical music just as accessible. "The complete set of classical music on your phone. That's IDAGIO," says communications director Birgit Gehring. The $10-a-month service—the brainchild of music-industry veteran Till Janczukowicz—offers more than 2 million classical tracks, which can be sorted by composer, conductor and soloist. There's also a free version with ads, and playlists for new listeners who are just getting acquainted with the genre. *—E.P.*



STYLE

THE WATCH YOU LOVE, SMARTER

Sony wena

As a student, Teppei Tsushima got strange looks when he wore his analog watch and smart watch on the same wrist at the same time. But he didn't want to sacrifice the look of the analog or the capabilities of the techie version. With Sony's wena watch strap, a smart band that can be fitted to any watch face, Tsushima, wena's inventor and project manager, has found a way to "keep the beauty of the analog watch and the convenience of the smart watch" in one. Sony offers six watch-face styles to add to either the stainless steel wena wrist pro or black rubber wena wrist active, but customers can also attach any watch face they prefer. A narrow display panel built into both wena band options lets users discreetly track calls and messages, fitness activity, e-payments and more. "You can check your notifications without anyone noticing," Tsushima says. Currently available only in Japan, Ireland and the U.K., where the bands start at £349. *—Megan McCluskey*

AR & VR

BACK-SEAT GAMING

holoride

"We basically want to turn every vehicle into a moving theme park," says Nils Wollny, co-founder of virtual-reality startup holoride. The company, an Audi spin-off, has developed a virtual-reality app that reads vehicle data like acceleration and turning and incorporates it into a VR experience. If you're flying a virtual spaceship in your headset and the car turns left, the spaceship veers left as well. The founders say the feedback reduces motion sickness, while allowing passengers to do anything from reading the news to saving the galaxy from the back seat. They plan to roll out holoride to ride-share services next year and have their software in car models starting in 2021. For now, holoride is committed to the theme-park image: in October, the company launched a Halloween experience at Universal Studios.

—Alejandro de la Garza

BEAUTY

ONE-STEP GLAM

Dyson Airwrap Styler

"Dyson engineers always start with a problem," says Sam Bernard, global director of the company's personal-care division. In this case, the problem was the irreparable hair damage caused by curling irons and other hot styling tools. Dyson's solution? Use its prowess in air technology to create a single tool, the $549.99 Airwrap, that dries and styles hair at once, no twisting or heating required. The Airwrap uses the powerful Dyson digital motor V9 to "vacuum" sections of hair, and low heat to create waves or curls. "Before the Airwrap, consumers just accepted that in order to create the style they wanted, they would need to damage their hair with extreme heat," Bernard says. "Since the introduction of our products, they have a choice in the matter." —*Cady Lang*

Intelligent heat control measures temperature more than 40 times a second
The Airwrap uses a continuous flow of air to curl without extreme heat
dyson

CONSUMER ELECTRONICS

SUPERIOR LISTENING

Apple AirPods Pro

What sets Apple's new $249 AirPods Pro apart from your average headphones? Aside from its pocket-friendly wireless charging case, the in-ear, truly wireless earbuds boast advanced noise-managing capabilities, clever design choices and thoughtful software features. A companion app that helps you find the right size silicone tips makes securely fitting the sweat-resistant earbuds easy, and classic in-ear headphone issues like clogged ears are gone because of the vented design. Stellar active noise cancellation silences the world around you—but you can choose to maintain environmental awareness by turning on "transparency mode." Although you can't plug a headphone splitter into an iPhone anymore, you can use your AirPods Pro (or a second pair of AirPods) to share audio with a friend when paired with any iOS 13 device. All this adds up to an unparalleled experience when it comes to truly wireless earbuds.

—*Patrick Lucas Austin*

HOME

AN UPDATED WASTE BIN

simplehuman Sensor Can with voice and motion control

There's something freeing about controlling objects with your voice. When you say, "Open can," simplehuman's Sensor Can with voice and motion control opens, then slowly closes a few seconds later. Sensor Can was updated in early 2019, with improved voice recognition, thanks to a new three-microphone array. You can also tell Sensor Can to stay open, or when to close. And if you'd rather stay quiet and wave your hand to prompt the lid to open, well, Sensor Can responds to that too. simplehuman views its products as "the opposite of disposable," says founder and CEO Frank Yang, and Sensor Can was tested for 300,000 open and close cycles to confirm its durability. The 58-liter model is available for $200.

—Jason Cipriani

WELLNESS

A SMARTER NIGHT-LIGHT

Casper Glow

Technology often works to disrupt sleep, but Casper's new app-linked Glow bedroom light is designed to get out of the way and let you rest. The first gadget from the company known for its mail-order mattresses, Glow has a warm LED light that activates when you flip it over, then gradually dims as you wind down. In the morning, Glow slowly activates at your predetermined time to gently wake you. A twisting motion adjusts brightness, while a shake produces a soft, downward-facing light, perfect for grabbing water in the middle of the night—no looking at your phone necessary. "We were trying to design for these larger gestures, which are easier to do in the dark or easier to do when you're sleepy," says Jeff Chapin, Casper's chief product officer. And sleepy users evidently appreciate the intuitive design decisions; following Glow's launch in January, the first batch sold out in less than three weeks.

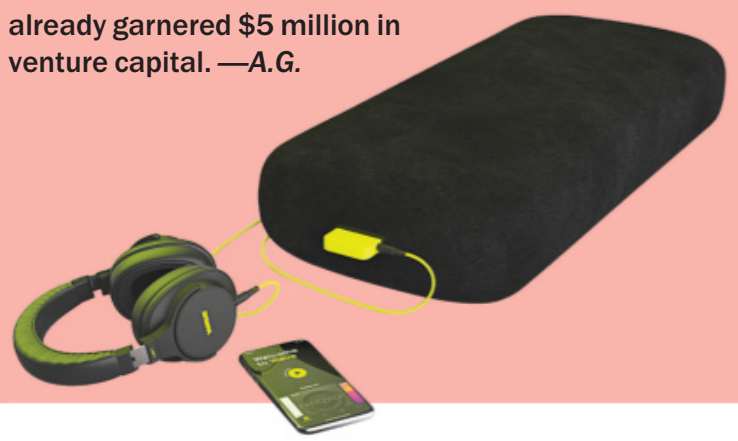
—Alejandro de la Garza

CONSUMER ELECTRONICS

FINDING PEACE, WITH BEATS

WAVE

Meditation is gaining popularity in America, but many still don't see the appeal of a trend that seems so, well, dull. That's where WAVE comes in. It's a subscription-based app and vibrating pillow ($199 for the kit) that create a more stimulating guided-meditation experience. Users slip on the included headphones, lean back on the pillow and crank the volume on one of WAVE's original electronic-music meditation albums. Feeling the musical vibrations while working through a mindfulness exercise "creates this multisensory experience that's unlike anything else," says Mason Levey, WAVE's co-founder and CEO. The founders have already garnered $5 million in venture capital. *—A.G.*



EXPERIMENTAL

SAILING ON SUNLIGHT

LightSail 2

A major challenge of spaceflight is the weight of fuel, which dramatically increases costs. The LightSail 2 satellite, launched in June, may have proved how to lighten the load. It's currently flying free using only light as fuel. When photons from sunlight hit its silvery sail, they impart a small force that increases velocity without the need for an engine or thruster. On July 31, LightSail successfully accelerated enough to raise its orbit by 1.25 miles—not much, but a critical proof of concept.

—Jeffrey Kluger

PREVIOUS SPREAD: DYSON AIRWRAP STYLER: JOE LINGEMAN FOR TIME. THIS SPREAD: CASPER GLOW: JOE LINGEMAN FOR TIME

CONSUMER ELECTRONICS

A ROBOT THAT ROLLS

Temi

Will personal robots be the next home-technology revolution? The makers of Temi think so. Its robot includes a touchscreen, voice controls and 16 different sensors that allow it to autonomously navigate around objects and people, as well as AI that enables it to learn the layout of your house and travel to any room you tell it to—as long as it doesn't need to open doors or get up any stairs. While Temi (which costs $1,999) can also play music, take photos, play games and answer questions, the robot's engineers say its most important mission is to help people stay connected. "I knew that the telecom value would bring happiness and reduce loneliness," says Yossi Wolf, Temi's founder and CEO. Employing voice and facial recognition, the robot can follow you with a video call even if there are other people around, and knows that "Call Dad" means your dad, not your partner's. Launched in June, Temi has already shipped hundreds of its robots across the U.S.

—Alejandro de la Garza

Temi's autonomous face tracking lets its screen tilt to meet your gaze during calls
The robot is about 3 ft. tall and can travel up to 1 m/sec.
temi

TEMI: JOE LINGEMAN FOR TIME

AR & VR

ADVANCING VIRTUAL REALITY

HTC VIVE Pro Eye

At first glance, HTC's VIVE Pro Eye looks like just another high-end virtual-reality headset, much like the ones from game developer Valve or Facebook's Oculus subsidiary. It's not the most user-friendly option—it requires a PC and isn't wireless. But put it on, and you'll see how the headset (which costs $1,599) is pushing the boundaries of technology. Its advanced eye-tracking feature follows your gaze so accurately, it can be used to navigate and control devices by people with physical disabilities who can't use hand controllers, and it automatically increases the resolution of whatever you're looking at using software that mimics the way your eyes actually focus. More immersive features cater to businesses and professionals who want to incorporate VR into their testing, training or manufacturing workflow. It conjures a future where all job training could happen in a headset.

—Patrick Lucas Austin

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CEO David Zeuner pictured with Stacy Self and Michael Self, owners of the first Miracle CBD and More licensed store.

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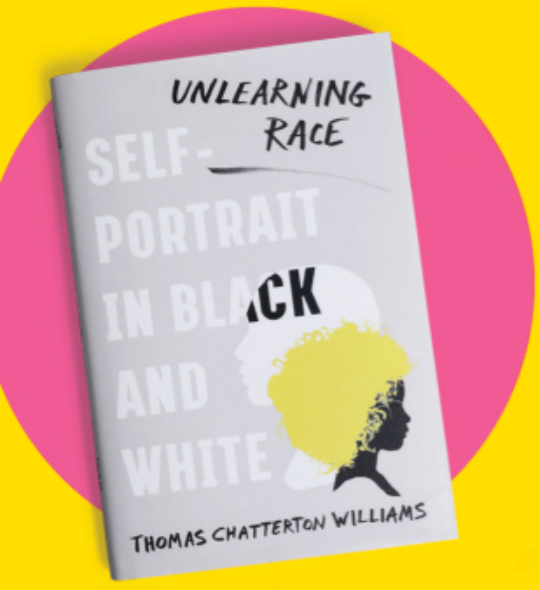


THE 100 MUST-READ

BOOKS

OF 2019

WRITTEN AND EDITED BY

Naina Bajekal, Emma Barker, Eliza Berman, Judy Berman, Andrew R. Chow, Kelly Conniff, Eliana Dockterman, Merrill Fabry, Lucy Feldman, Lori Fradkin, Annabel Gutterman, Suyin Haynes, Nate Hopper, Cady Lang, Sam Lansky, Belinda Luscombe, Lily Rothman, Eben Shapiro, Lucas Wittmann and Elijah Wolfson

THE 10 BEST FICTION BOOKS

1. THE NICKEL BOYS

Colson Whitehead

Inspired by a Florida news story, the Pulitzer Prize winner imagines two black boys fighting to survive a juvenile reformatory in the Jim Crow South. Like *The Underground Railroad,* this book draws from U.S. history to underscore the continued relevance of the characters' oppression.

2. THE TESTAMENTS

Margaret Atwood

The legendary author returns to the Republic of Gilead 34 years after the release of her classic, *The Handmaid's Tale.* Her page-turning sequel traces the rise and ultimate fall of the totalitarian theocracy, a society with frightening parallels to the ugliest aspects of humanity.

3. LOST CHILDREN ARCHIVE

Valeria Luiselli

A family of four embarks on a road trip from New York to Arizona, hoping to discover news of two Mexican children whose mother, an acquaintance, awaits them in the U.S. Luiselli, who was born in Mexico, offers a timely and illuminating reflection on family separation.

4. THE NEED

Helen Phillips

While home with her young daughter and infant son, Molly, a paleobotanist, believes she hears an intruder. But who—or what—has invaded the overworked mother's world that evening is only the beginning of Phillips' heart-stopping psychological examination of parenthood and its attendant anxieties.

5. BLACK LEOPARD, RED WOLF

Marlon James

A refreshing entry in a genre overfed by the myths of Western and Northern Europe, the Booker Prize winner's fantasy traces the epic search for a lost child, drawing on the tropes, character types and narrative renderings of African mythology and true history.

6. TRUST EXERCISE

Susan Choi

Choi plays with subjectivity, first telling the story of two performing-arts-school students who get high on summer romance and come down hard under the influence of a manipulative teacher—and then overriding it with a jarring shift in perspective halfway through the novel.

7. ON EARTH WE'RE BRIEFLY GORGEOUS

Ocean Vuong

The poet's semi-autobiographical debut novel follows Little Dog, a Vietnamese-American boy who grows up in icy Hartford, Conn., raised by a mother and grandmother who bear the scars of poverty, mental illness and the Vietnam War.

8. WHERE REASONS END

Yiyun Li

Li's narrator dwells in an area between life and death as she imagines a dialogue with her teenage son, who recently died by suicide—a loss the author herself experienced. Their conversation exists in a world separate from time, where the two can reflect on the life they shared.

9. THE TOPEKA SCHOOL

Ben Lerner

In this novel about a high school debate champion, his therapist parents and a school outcast, the author works to unfurl the intermingled roots and expressions of "toxic masculinity," exploring male rage and the language that can help it metastasize.

10. DRIVE YOUR PLOW OVER THE BONES OF THE DEAD

Olga Tokarczuk, trans. Antonia Lloyd-Jones

Blending mystery and fairy tale, the Nobel laureate comments on the flawed way we tend to designate sanity as her protagonist inserts herself into the investigation of murders she believes are tied to a town's proclivity for hunting.

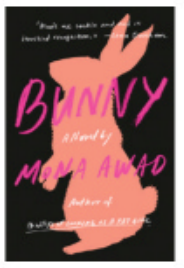
Atwood's novel shared the 2019 Booker Prize with *Girl, Woman, Other*

SUSPENSE AND ALTERED WORLDS

AMERICAN SPY

Lauren Wilkinson

A pick for President Obama's summer reading list, *American Spy* reinvigorates the genre, following a black woman in the FBI tasked with helping to remove the communist President of Burkina Faso.



BUNNY

Mona Awad

Awad's memorably morbid novel depicts the trials of a misfit M.F.A. student as she gets welcomed into a detestable clique of classmates she calls the Bunnies. Soon, quite literally, heads explode.

THE CHAIN

Adrian McKinty

How far would you go for your kids? Rachel is forced to test herself when she receives a terrifying call: her daughter has been abducted, and she must snatch another child in order to get her back.

THE FARM

Joanne Ramos

Paid surrogates live under lock and key at a "gestational retreat"—unable to access their lives outside. There are no easy villains in Ramos' layered story exploring race, class and immigration.

INLAND

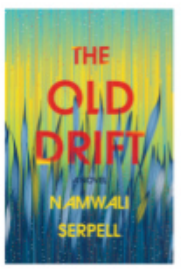
Téa Obreht

In this fantastical western, an Arizona woman searches for her missing husband and sons—and water—while a camel trainer tries to stay alive even as the dead keep trying to talk to him.

NINTH HOUSE

Leigh Bardugo

A Yale student who can see ghosts is recruited to report on the university's secret societies. YA star Bardugo's adult debut tackles real-world issues like campus sexual assault.



THE OLD DRIFT

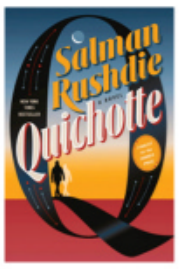
Namwali Serpell

Serpell traces a family in what is now Zambia through generations, from colonial confrontations and independence to an otherworldly future where people possess smartphone-like hands.

AN ORCHESTRA OF MINORITIES

Chigozie Obioma

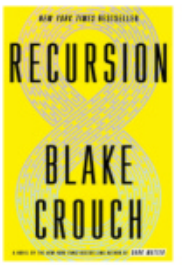
A Nigerian chicken farmer falls for a woman after saving her life, but her family doesn't approve. The man's omniscient inner spirit narrates his odyssey in search of betterment.



QUICHOTTE

Salman Rushdie

A reimagining of Cervantes' classic, *Quichotte* follows a traveling salesman who believes he must marry a TV star. But wait—his is just a story within the story of the middling crime novelist writing him.



RECURSION

Blake Crouch

False memories wreak havoc in Crouch's alternate universe, where people are driven to make catastrophic decisions after remembering experiences they've never had.

THE STARLESS SEA

Erin Morgenstern

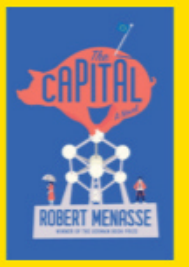
The author of *The Night Circus* plays with fables and fairy tales as her protagonist, a grad student, chases answers about a strange childhood incident into magical new worlds.

THE WATER DANCER

Ta-Nehisi Coates

In Coates' debut novel, Hiram Walker breaks free of bondage and works for the Underground Railroad in the fight for freedom—sometimes employing superheroic skills.

LITERATURE IN TRANSLATION



THE CAPITAL

Robert Menasse, trans. Jamie Bulloch

The German writer blends murder mystery, workplace farce and action thriller as he follows disparate characters struggling to find their place in a Europe in transition.

CHINA DREAM

Ma Jian, trans. Flora Drew

In 2012, Chinese President Xi Jinping proclaimed his vision of a "China Dream." Here, the dissident author presents us with a satirical "China Nightmare."

IT WOULD BE NIGHT IN CARACAS

Karina Sainz Borgo, trans. Elizabeth Bryer

The Venezuelan journalist depicts a woman grieving a loss in the capital city as it is ravaged by political clashes.

THE MEMORY POLICE

Yoko Ogawa, trans. Stephen Snyder

The decorated Japanese novelist offers a haunting dystopia about a society where objects and memories are stolen by a terrifying police force.

STALINGRAD

Vasily Grossman, trans. Robert Chandler, Elizabeth Chandler

A prequel to his Russian classic *Life and Fate,* Grossman's story further illuminates the Nazi march on Stalingrad.

OPPOSITE PAGE: KIM BUBELLO FOR TIME; THIS PAGE: MCKINTY: ALAMY; GETTY IMAGES (3)

FICTION

SHORT STORIES

EVERYTHING INSIDE

Edwidge Danticat

The Haitian-American writer offers exquisite ruminations on the power of place. Whether the characters in the collection are leaving, returning or reminiscing about home, their stories capture what it means to belong to a singular world.

EXHALATION

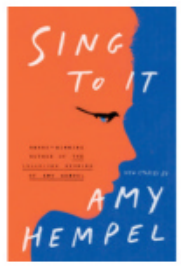
Ted Chiang

Nine stories of refined, accessible prose prove both poignant and disturbing as Chiang mines subject matter like time travel and artificial intelligence. The acclaimed science-fiction writer showcases an unnerving ability to conjure dark futures.

LOT

Bryan Washington

In his insightful debut collection, Washington demonstrates the depth and dynamism of his native Houston, a city that embodies many of the subjects lying at the center of contentious national debate: diversity, borders and identity.



SING TO IT

Amy Hempel

Stories ranging from one to 60 pages, populated by a variety of characters—from a volunteer at a dog shelter to a wife reflecting on her fractured marriage—show Hempel, one of the greats of the form, straddling the line between humor and sadness.

REALISTIC FICTION

ALL THIS COULD BE YOURS

Jami Attenberg

A portrait of the love, and mess, that inevitably accompanies family life, Attenberg's latest depicts the many troubled Tuchmans as they face their patriarch's imminent death.

DOXOLOGY

Nell Zink

Zink plays the role of a hipster Tolstoy, weaving the war on terror, climate change and the disorientation of the 2016 presidential election into the lives of three generations of a fractured family.

DUCKS, NEWBURYPORT

Lucy Ellmann

A thousand pages composed mostly of a single run-on sentence, Ellmann's strangely addicting stream-of-consciousness narrative drops into the mind of an Ohio mother.

OLIVE, AGAIN

Elizabeth Strout

The cranky retired math teacher from Strout's Pulitzer Prize–winning novel makes a triumphant return in 13 interlinked stories set in small-town Maine, where Olive Kitteridge offers unsolicited advice and faces the indignities of old age.

THE OTHER AMERICANS

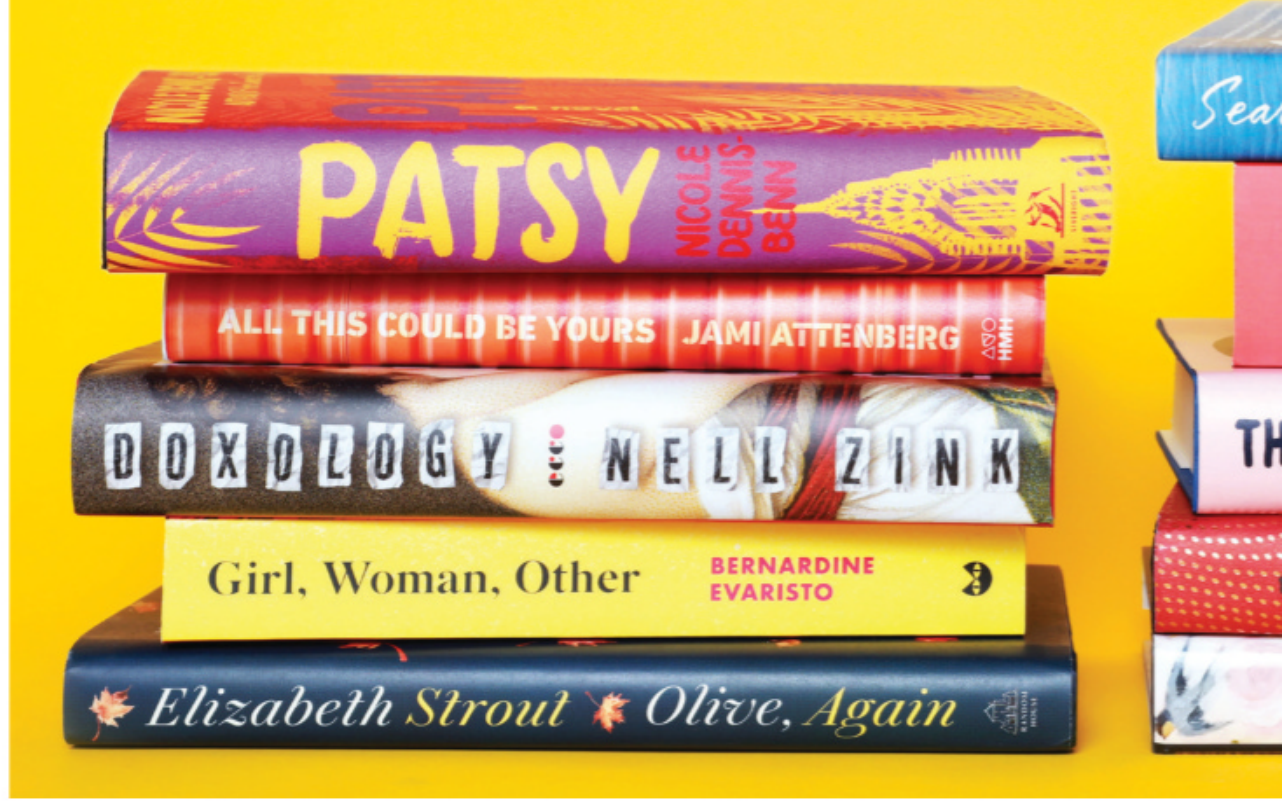
Laila Lalami

The Pulitzer Prize finalist weaves together the voices of nine different narrators as she unfolds the mysterious hit-and-run killing of Driss Guerraoui, an elderly Moroccan immigrant in a small Mojave Desert town.

PATSY

Nicole Dennis-Benn

Dennis-Benn observes how a woman's identity—female, black, queer—can inform her status in different ways depending on the context. Her story follows a Jamaican mother who chases love and a better life to the U.S., only to find new struggles.



REALISTIC FICTION / FEWER THAN 300 PAGES

FIND ME

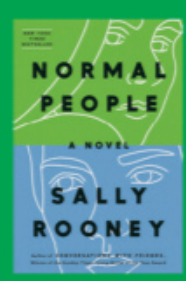
André Aciman

Aciman returns to the world of his 2007 novel *Call Me by Your Name* to see how time has changed Elio, Oliver and other beloved characters.

THE MAN WHO SAW EVERYTHING

Deborah Levy

Narcissist Saul must consider what it means that he was hit by a car twice—in 1988 and 2016—at the same crosswalk.



NORMAL PEOPLE

Sally Rooney

In Rooney's second millennial love story, a couple struggles to stay together as the control in the relationship shifts from one to the other.

THE DUTCH HOUSE

Ann Patchett

Patchett follows siblings who lose their home, probing the corrosive link between family and wealth and the role women are often cast in as rebuilders.

GIRL, WOMAN, OTHER

Bernardine Evaristo

The prizewinning novel traces the histories of 12 British women over more than 100 years. With each comes a distinctive perspective on feminism, race and class.

SEARCHING FOR SYLVIE LEE

Jean Kwok

Partly inspired by a tragic event from the author's life, her novel follows a search for a missing sister that leads to broad revelations about family, language and belonging.

THE SHADOW KING

Maaza Mengiste

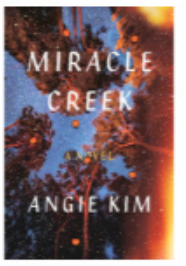
An orphan in Ethiopia works as a maid—until she steps up to become a war hero, helping to defend her country against Mussolini's invasion in 1935.

REALISTIC FICTION / DEBUT

FLEISHMAN IS IN TROUBLE

Taffy Brodesser-Akner

In this wildly uncomfortable, hilarious and raw novel, the co-parenting efforts of a recently separated couple hit a major snag when Toby Fleishman's ex one day unexpectedly drops off the kids and never returns.



MIRACLE CREEK

Angie Kim

A fire erupts at a medical-treatment facility in Virginia and kills two people, including a child. Seeking someone to blame, the small-town community devolves into distrust in a story that's both murder mystery and reflection on otherness.

MOSTLY DEAD THINGS

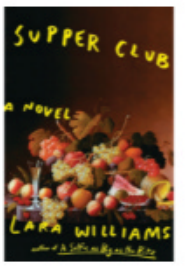
Kristen Arnett

Jessa-Lynn is aching to forget her father's suicide but unable to do so as she is now in charge of his failing taxidermy shop, where she found his body. Grief comes in many forms: for her mother, that means creating controversial art as a way to cope.

QUEENIE

Candice Carty-Williams

Billed as a "black Bridget Jones," *Queenie* follows a woman whose life starts to unravel after a breakup. But the story of her misadventures goes deeper as the protagonist struggles through depression and self-destruction.



SUPPER CLUB

Lara Williams

A self-conscious young woman and her best friend throw debauched dinner parties—judgment-free zones where women can gorge, get high and "take up space," itself a radical feminist act in a society that's always policing women's hunger.

THE UNPASSING

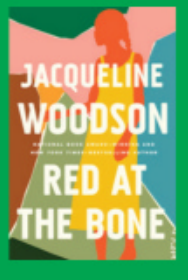
Chia-Chia Lin

A terrifying bout of meningitis takes the life of a little girl but spares her older brother, leaving their Taiwanese-American immigrant family reeling in 1980s Alaska, navigating heartbreak and uncertainty in an unfamiliar world.

NOTHING TO SEE HERE

Kevin Wilson

Lillian's life is forever changed when she becomes the governess for 10-year-old twins—who regularly burst into flames.



RED AT THE BONE

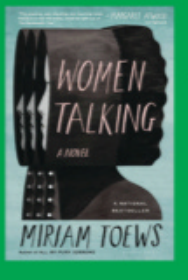
Jacqueline Woodson

Woodson traces the impact of an unplanned teen pregnancy on multiple generations of a Brooklyn family.

THE REVISIONERS

Margaret Wilkerson Sexton

Two black women—related but separated by nearly 100 years—grapple with motherhood, race and freedom.



WOMEN TALKING

Miriam Toews

Toews fictionalizes a real case of Mennonite women and girls in Bolivia who were drugged and raped by men in their community.

BOOKS: KIM BUBELLO FOR TIME; WASHINGTON: DAVID GRACIA; WILSON: JOSH ANDERSON—THE NEW YORK TIMES/REDUX; BRODESSER-AKNER: SHUTTERSTOCK; LIN: F. YANG; SEXTON: MELISSA SCHMIDT; GETTY IMAGES (2)

THE 10 BEST NONFICTION BOOKS

1. SAY NOTHING

Patrick Radden Keefe

Keefe delivers a strong example of how to take a brutal crime (the murder of a mother of 10 in 1972 Northern Ireland) and use it to tell, in page after gripping page, a much larger history—delving into the IRA, the British occupation and the terrorism that plagued the country for decades.

2. KNOW MY NAME

Chanel Miller

Miller—known for years as Emily Doe, the woman who delivered a powerful victim-impact statement after being sexually assaulted at a 2015 Stanford party—gives the most profound look at life as a survivor we've seen since the #MeToo movement began.

Keefe may have solved the cold-case murder through his reporting

3. THE YELLOW HOUSE

Sarah M. Broom

One of the many things lost in Hurricane Katrina was the home where Broom and her 11 siblings once lived with their parents. In her memoir, Broom reflects on the history of the New Orleans East neighborhood and her family's experiences there.

4. UNDERLAND

Robert Macfarlane

Macfarlane journeys deep inside mines, through the catacombs of Paris and into glaciers to examine a layer of the world that humans irrevocably shape but rarely stop to consider. He asks that most haunting of questions: What is our true mark on this planet?

5. IN THE DREAM HOUSE

Carmen Maria Machado

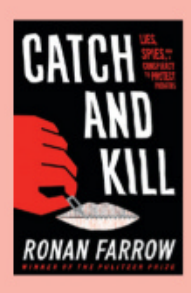
Weaving examples from academia, pop culture and history into a personal story, Machado comments on abuse in same-sex relationships in a tour de force meditation on trauma, survival and the language we use to talk about it all.

6. FURIOUS HOURS

Casey Cep

In the 1970s, Harper Lee reported a story that could have been her next book: the killing of an Alabama man who was accused, but never convicted, of being a serial killer. Cep investigates the forgotten story, including why Lee's book never materialized.

TRUE CRIME AND JOURNALISM



CATCH AND KILL

Ronan Farrow

That Farrow's thriller about reporting on sexual misconduct at the Weinstein Co., CBS and NBC is all true only makes it that much scarier. He paints a damning portrait of a conspiracy between major players in politics and media to cover up rampant abuse.

MY FRIEND ANNA

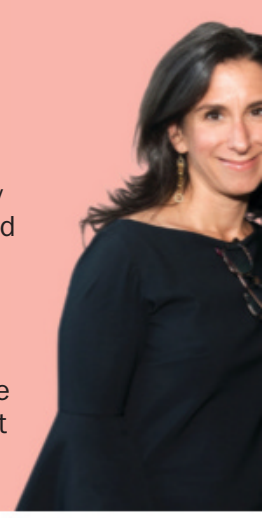
Rachel DeLoache Williams

Williams was entranced by Anna "Delvey," a woman who claimed to be a German heiress—until she left Williams with a $62,000 tab on her credit cards and no means to pay the bills. Williams reveals the story of her friendship with now notorious con woman Anna Sorokin.

SHE SAID

Jodi Kantor and Megan Twohey

The reporters recount how they broke the Harvey Weinstein story and gained the trust of survivors who had every reason never to trust again, shining light not on the accused but instead on those who were brave enough to speak out against him.



7. THE HEARTBEAT OF WOUNDED KNEE

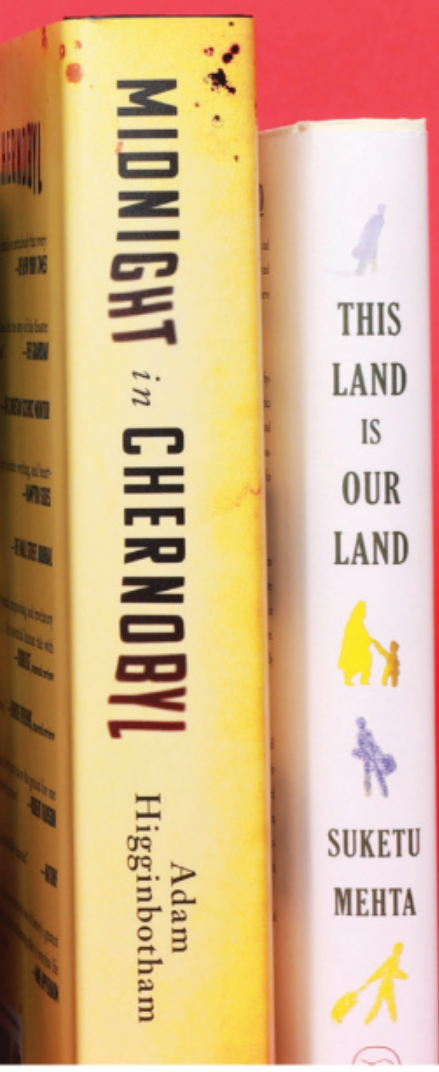
David Treuer

The Ojibwe writer blends a century of history with his own memoir and reportage to offer a stirring rejoinder to the fallacy that the story of American Indian civilization and culture ends with the massacre at Wounded Knee.

8. THE COLLECTED SCHIZOPHRENIAS

Esmé Weijun Wang

Thirteen riveting essays bring readers intimately close to the frustrations, horrors and confusion of living with chronic and mental illness. Wang bares all as she details the lead-up to, and diagnosis of, her schizoaffective disorder.



9. MIDNIGHT IN CHERNOBYL

Adam Higginbotham

With meticulous research and a gripping narrative, the journalist captures the events of April 1986, when the infamous nuclear plant melted down in Ukraine and changed the world.

10. THIS LAND IS OUR LAND

Suketu Mehta

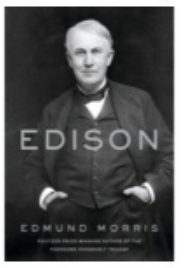
Mehta, whose family moved to the U.S. from India when he was a teen, delivers a proclamation in favor of migration, arguing that it is a definitive good—not just for those who move, but also for societies that enable them to thrive.

THINGS WE DIDN'T TALK ABOUT WHEN I WAS A GIRL

Jeannie Vanasco

Vanasco tracked down the man who raped her when she was 19 years old and asked him to go on the record about what happened and why. The result is a fascinating look inside the mind, and heart, of an abuser.

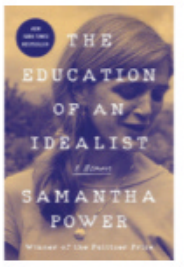
HISTORY AND POLITICS



EDISON

Edmund Morris

One of America's greatest biographers (his three-volume life of Teddy Roosevelt is a classic) sadly did not live to see his final book published. Fortunately for his fans, his biography of Thomas Edison is a fascinating gallop through the very full life of one of America's greatest inventors and entrepreneurs—the man who created the foundations for much of our modern world.



THE EDUCATION OF AN IDEALIST

Samantha Power

A former U.S. ambassador to the U.N., Power chronicles how to, in her words, "prosecute change": with a legion of conversations, a commitment to building relationships, a slew of tiny adjustments in the law, an unflagging enthusiasm for advocacy and a lot of childcare. Her memoir is an energizing reminder that conscience has a place in the process of shaping foreign policy.

THE MUELLER REPORT

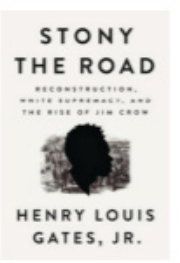
Robert Mueller

Americans tensely awaited the release of the Mueller report, the result of 22 months of investigation into the actions of Russians and the Trump campaign surrounding the 2016 U.S. presidential election. It was a story that promised to define the politics of our time, a legal thriller and a political spy narrative wrapped into one. And when it arrived, redactions aside, it inspired ever more questions.

PLACES AND NAMES

Elliot Ackerman

Across five tours as a Marine in Iraq and Afghanistan, Ackerman proved himself not only a fighter but also a leader, earning the Purple Heart, the Bronze Star and the Silver Star. In his stirring memoir *Places and Names,* the veteran attempts to make sense of the reasons he served (both personal and geopolitical), the people he met, the kinship he felt and the hard truths he has since confronted.



STONY THE ROAD

Henry Louis Gates Jr.

In the years since debate over Confederate monuments swept the U.S., it has become clearer than ever that we're still living in the aftermath of the Civil War. Gates underlines that reality by turning to the period after the war, when equal rights expanded alongside backlash to that idea. Drawing on images of white supremacy, he shows how deep American racism, and resistance to it, has gone.

A WARNING

Anonymous

In a year overflowing with books about the President, the work credited to an unnamed senior Trump Administration official became the most discussed in its category. In 2018, the anonymous author wrote an op-ed claiming that senior officials were working against the President's "worst inclinations." The controversial book offers more details about what happens behind closed doors in the White House.

BOOKS: KIM BUBELLO FOR TIME; ACKERMAN: ALBERTO CRISTOFARI—CONTRASTO/REDUX; GETTY IMAGES (3)

NONFICTION

POETRY

MAGICAL NEGRO

Morgan Parker

Positioned as a rebuttal to the problematic "magical negro" trope prevalent in film, wherein a black character is used to save a white character's soul, Parker instead finds magic in the daily existence of black people.

OCULUS

Sally Wen Mao

Mao plays with the subjective reality of screens, exploring what isn't visible and what could be. In one fictionalized piece, Mao imagines Chinese-American movie star Anna May Wong as a "prudish" webcam performer.

THE TRADITION

Jericho Brown

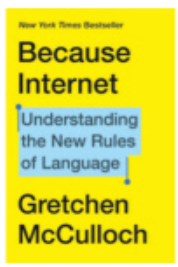
When he writes, "My body is a temple in disrepair," Brown is speaking not only about his corporeal form but also about society's treatment of him as a queer black man. His collection engages several kinds of tradition, including form and mythmaking.

SOCIETY AND SCIENCE

THE AGE OF SURVEILLANCE CAPITALISM

Shoshana Zuboff

Part urgent manifesto, part deeply researched modern history, the former Harvard Business School professor's book examines the tech industry's exploitation of human experience for the sake of revenue.



BECAUSE INTERNET

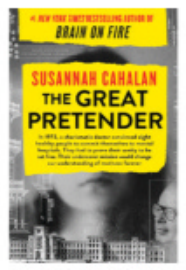
Gretchen McCulloch

Lol, the Internet, amirite? Linguist McCulloch explains the pervasive phenomena reshaping how we use the English language online and, inevitably, how we think, feel and respond to one another.

DIVERSITY, INC.

Pamela Newkirk

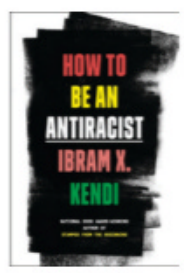
Newkirk, a journalist, interrogates a shameful reality: despite the existence of a multibillion-dollar industry nominally dedicated to ensuring that American companies and institutions are more inclusive, diversity is still largely an empty buzzword in 2019.



THE GREAT PRETENDER

Susannah Cahalan

The *Brain on Fire* author, who was once misdiagnosed with bipolar disorder, revisits a 1970s experiment that changed the course of modern mental-health care, and calls for improvements to a damaged system.



HOW TO BE AN ANTIRACIST

Ibram X. Kendi

Kendi, a scholar of racism through history, writes there's no such thing as not being racist. Rather, he posits, there is only racism and that which works against it. In a reverberant challenge to readers, Kendi explains how to practice antiracism.

HOW TO DO NOTHING

Jenny Odell

Professor, artist and archivist Odell offers a self-help guide to the joys of detachment and the beauties of observation—but also a decree on the personal, and thus political, import of separating oneself from the Internet and its everlasting noise.

HOW TO HOLD A GRUDGE

Sophie Hannah

Rather than forgive and forget, Hannah wants us to understand the power of holding grudges. Irreverent, meditative and surprisingly optimistic chapters describe how to invite negative feelings in to better prepare for dealing with conflict.

MAYBE YOU SHOULD TALK TO SOMEONE

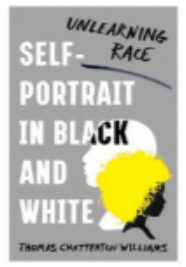
Lori Gottlieb

Psychotherapist Gottlieb uses real (anonymous and altered) patient stories as well as her own sessions with a therapist to demystify the process, putting readers in the room as people work through their problems.

THE MOMENT OF LIFT

Melinda Gates

Gates explains how she came to believe that the best way to fix a society is to empower its women, detailing her own life—including struggles to be an equal at home—as well as the lives she has helped change through her philanthropy.



SELF-PORTRAIT IN BLACK AND WHITE

Thomas Chatterton Williams

Analyzing our conception of race, Williams urges people not to let it determine identity or behavior. Instead, he counsels that we should all be aware of group identities while limiting their influence.

THREE WOMEN

Lisa Taddeo

Taddeo tracked three women's sex lives for eight years, witnessing mistakes, moral confusion and bad men. Her often fraught depiction, though limited in the diversity of its subjects, adds to the discussion of what men and women do and do not want.

THE UNINHABITABLE EARTH

David Wallace-Wells

Wallace-Wells offers a vividly explained portrayal of what awaits our changing planet—that is, unless readers (and their families, their communities and their countries) commit to change.

THIS PAGE: MAO: JILIAN; WALLACE-WELLS: SHUTTERSTOCK; GETTY IMAGES (3); OPPOSITE PAGE: KIM BUBELLO FOR TIME

MEMOIR AND ESSAYS

DEAR GIRLS

Ali Wong

Each graphic tale of sex, personal grooming, childbirth and motherhood in stand-up comedian Wong's perceptive and filthy memoir is set up as a letter to her daughters—who are preschool age.

GOOD TALK

Mira Jacob

In her graphic memoir, Jacob considers life experiences past and present to answer the difficult questions posed by her young biracial son ahead of the 2016 presidential election.

HOW WE FIGHT FOR OUR LIVES

Saeed Jones

Jones, a poet who grew up gay in Texas, marries his command of language and imagery with his desire for power over his existence and identity and, sometimes, over others.

ONCE MORE WE SAW STARS

Jayson Greene

After losing his 2-year-old daughter in a tragic accident, Greene grapples with living in a world without her, reckons with his grief and ultimately finds a way back to hope.

OVER THE TOP

Jonathan Van Ness

The effervescent *Queer Eye* star details the adversity he faced growing up in the rural Midwest and reveals that he is HIV-positive. He has become a prominent advocate for that community.

THE SOURCE OF SELF-REGARD

Toni Morrison

The literary titan and Nobel laureate's last book published before her death collects 43 of her most illuminating essays, lectures and eulogies from the past four decades.

SURVIVAL MATH

Mitchell S. Jackson

Jackson's retelling of his youth in Portland, Ore., comprises found poems, footnotes, "victim statements" from women he's treated poorly and "survivor files" from his male family members.

THICK

Tressie McMillan Cottom

The sociologist meditates on "thickness," both as it relates to her way of taking up physical space and to her field, where a "thick description" is one offering proper context.

TRICK MIRROR

Jia Tolentino

The essayist's insights are sharp whatever the subject, whether the ghoulish rise of Internet culture or the wedding-industrial complex—especially when she examines her own complicity.

THE UNDYING

Anne Boyer

Diagnosed with breast cancer as a 41-year-old single mother living paycheck to paycheck, Boyer is outraged by the dialogue around the disease, from its portrayal on TV to "pink-ribbon culture."

THE UNWINDING OF THE MIRACLE

Julie Yip-Williams

Born blind, Yip-Williams survived her grandmother's desire to have her euthanized and thrived as an adult. Then a terminal cancer diagnosis changed everything.

Stephen A. Schwarzman The Blackstone CEO on his new book, income inequality, President Trump and the benefits of therapy

Your book *What It Takes: Lessons in the Pursuit of Excellence* has 13 pages of acknowledgments. But I was most struck that you included your therapist. How long have you been in therapy, and how has that helped you? My internist referred me to a therapist in 1990 when I was considering getting divorced, but I didn't know anything about how you got divorced. I'm still seeing that individual. He is a terrific coach and observer of the scene and a brilliant tactician in terms of understanding small-group interactions.

Income inequality is one of the defining issues of the upcoming election. You're the CEO of Blackstone—with an estimated net worth of more than $18 billion. Are you worried about a revolution or at least a wealth tax? There are a lot of people now who are starting to, with a very developed knowledge basis, respond to a lot of these issues. Steve [Rattner] wrote a very perceptive op-ed about why these proposals don't work, or worse. They can destroy potentially some major aspects of the American economic system. On the other hand, the reason that you have populism increasing is because at least 25% of Americans are in a disadvantageous position economically, and I don't refer to it as income inequality. I refer to it as—because there's always been wealthy people in America—income insufficiency.

How did we get here? It doesn't have anything to do with capitalism, per se. It has to do with the fact that the world changed. What's happened is that we've stopped adequately preparing our population for the world that we're living in, let alone the world of the future in the information age. This is a political problem. This is not a capitalism problem.

"WE'VE STOPPED ADEQUATELY PREPARING OUR POPULATION FOR THE WORLD THAT WE'RE LIVING IN"

DAVID DELGADO—BLOOMBERG/GETTY IMAGES

Given the record heights of the market, what do you worry about now? I think the biggest risks are political and geopolitical. They're not economic. Those are the things I worry about.

Alan Greenspan famously tracked cardboard boxes as economic indicators. What do you monitor? We each have our own favorite things. In the nonstatistical variety, I have a few signs of when you are at a top. One of them is when your not-so-gifted friends start getting very rich.

You've known the President for 30 years, and he selected you to head the now disbanded Strategic and Policy Forum. Do you think he's doing a good job of leading the country? Everybody's got their own view. Mine is not going to help the sum total of knowledge. I think that in the areas where I've been more active, which are economic, that I think we're making actually good progress in the trade area with China.

You've recently been given a high honor by the President of Mexico for your work on the trade deal. Do you worry about walls and a less hospitable environment to global trade? The world generally is moving to more populism, more nationalism. Part of this has to do with the Internet and social media. If you talk to the people running governments around the world, they'll tell you it's increasingly hard to run a liberal democracy. There's almost no issue today where very small groups of people aren't basically attacking the majority. And defeating what a majority wants to get their own way.

Do you think that's happening in this country now? Of course it is.

—EBEN SHAPIRO

• HERE'S TO •

THE SHOT TAKERS

THE RULE BREAKERS

THE ORIGINATORS

THE ALL NIGHTERS

THE CREATORS

THE CHASERS

THE HUSTLERS

THE FOUNDERS

THE INNOVATORS

THE MOVERS

THE SHAKERS

THE MAKERS

THE INITIATORS

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